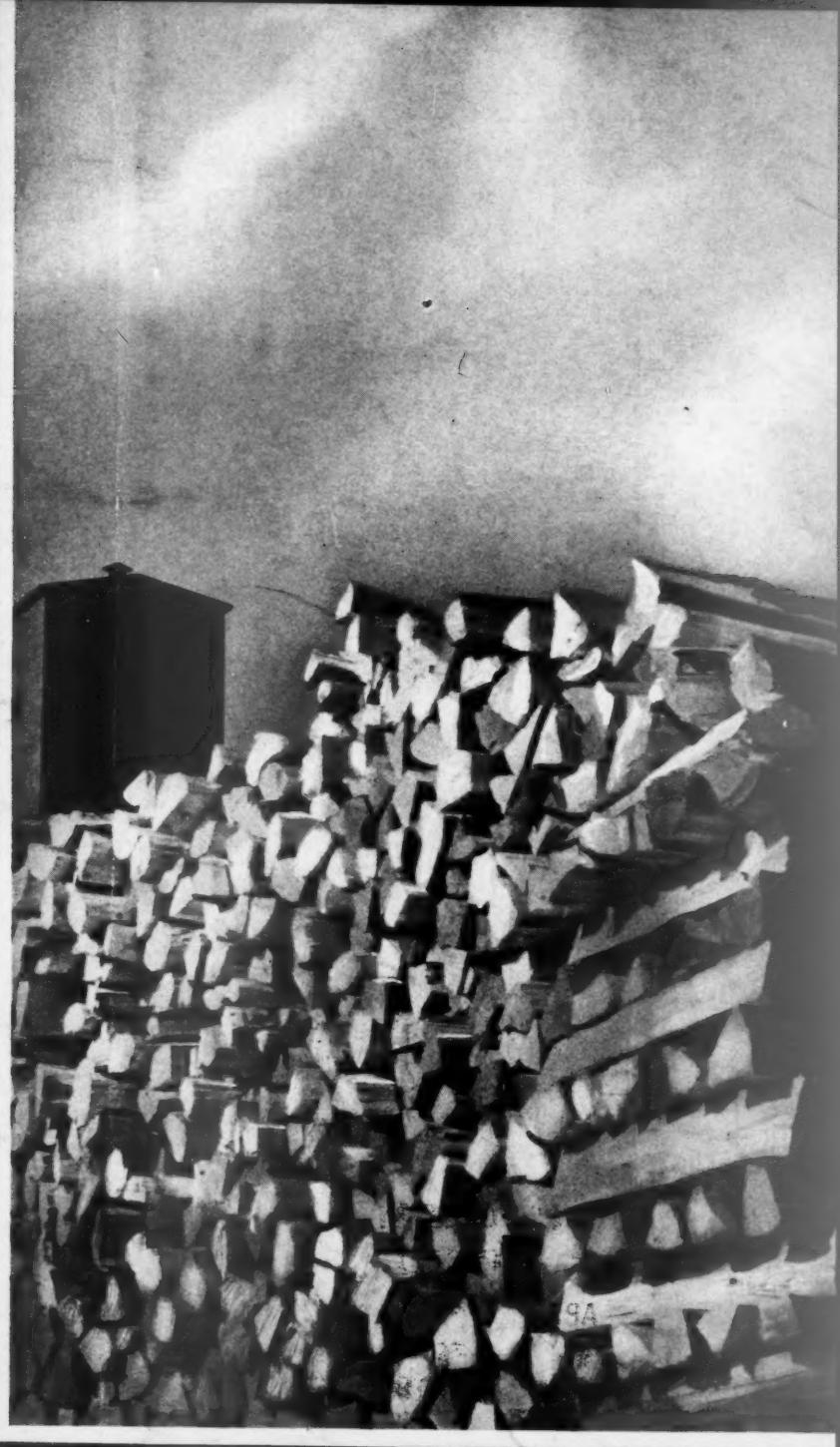


PACIFIC PULP & PAPER • INDUSTRY

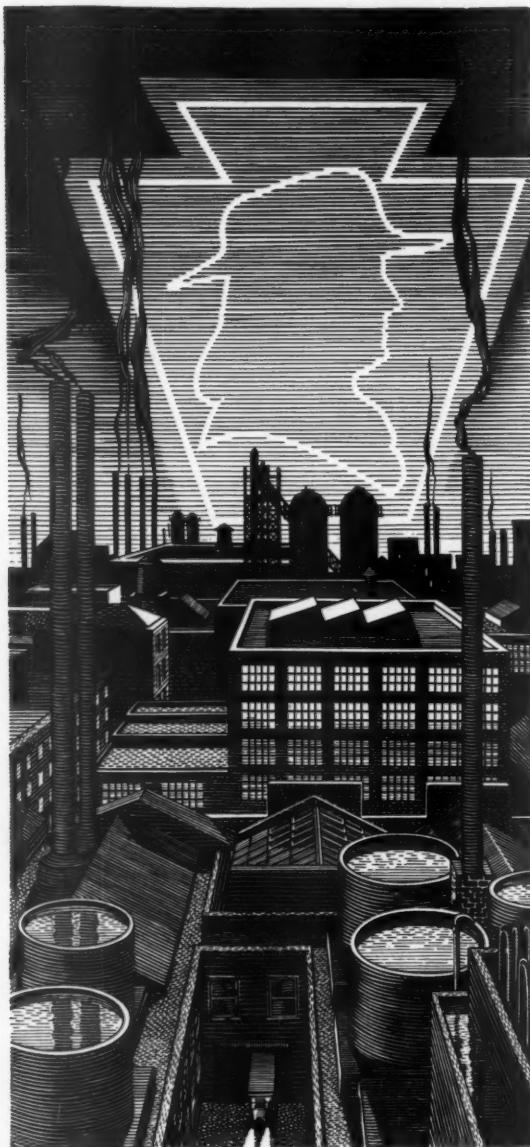
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Pacific Pulp & Paper Industry is published once a month, at 71 Columbia St., Seattle, Wash. Subscription: U. S. and Canada, \$4.00; other countries, \$5.00.
Entered as second class matter May 20, 1927, at the Postoffice at Seattle, under the Act of March 3, 1879.

Pacific
PULP and PAPER
Industry

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71 Columbia Street

SAN FRANCISCO—
369 Pine Street

PORLAND
1220 S. W. Morrison St.

LOS ANGELES
124 W. Fourth St.
Telephone: Mutual 5857

Published by the Consolidated
Publishing Co., in Seattle,
U. S. A., on the 15th of each
month.

SUBSCRIPTION RATES

United States and Canada	\$4.00
Other Countries	\$5.00
Single Copies	\$.35

TECHNICAL ASSOCIATION HOLDS SPRING MEETING

With approximately 100 in attendance, TAPPI members gathered at the Olympic Hotel, Seattle, on April 6 and 7, and held a well-programmed spring meeting. Under the able direction of section chairman Lawrence Killam, the meeting served both to bring forth full discussion of a number of worthy subjects between the previous membership and the newly affiliated members from the Crown Zellerbach organization, and to further strengthen the groundwork being laid for the international convention on the coast next September.

As has become the custom, the technical men began arriving at the scene of activity on Thursday evening, the night before the opening meeting, and joined in the informal reception that has been established as one of the most enjoyable events.

The Friday morning meeting opened with a discussion of the pulp-wood timber resources of the Pacific Coast by Thornton T. Munger, director of the Northwest Forest Experiment Station at Portland. His paper is published elsewhere in this issue. Further discussion of the subject was given by Bror L. Grondal, professor at the College of Forestry, University of Washington.

Wood Room Practice

Under the head of recent developments in wood room practice, Fred A. Nicholson gave an illustrated talk on wood preparation from the pond to the chippers, which will be published in full in this journal. T. W. Toovey of the British Columbia Pulp & Paper Co. at the Port Alice plant presented a paper on the barking of western logs in the Thorne barker, which will be published. Mr. Toovey showed a number of illustrative pictures and in addition, a motion picture showing the method of operation in detail.

In the ensuing discussion both Mr. Toovey and Lawrence Killam enlarged upon the subject in response to questions from members, bringing out the facts that while the cost of the barker itself is \$40,000

to \$50,000, a complete plant with conveyors, chippers, etc., would mean an investment of about \$150,000. However, loss in wood is less than one per cent, they reported, and about 25,000 feet of logs can be barked at one time in the machine. Mr. Killam also described an interesting installation at the Fraser company's plant in New Brunswick, which barks logs 20 feet long, after which they can be sent to the saw-mill where the lumber may be cut out and the slabs used for pulp.

Chippers

Developments in chippers were told of by Sigurd Norman, who said he believes that small chips are more uniform than large ones and give better yield. Several mills have changed from $\frac{3}{4}$ -inch chips to $\frac{1}{2}$ -inch chips, he said, with good results. His opinion was that the number of knives in the chipper has no bearing on chip quality, as long as they are far enough apart. The speed of the disc is important, he said, pointing out that they have run small chippers as high as 5800 cuts per minute and obtained good chips. On some soft woods, speed can be too great, but ordinarily the higher speeds of cuts give good results.

Ferdinand Schmitz, Jr., in taking up the discussion, said he believed uniformity affects yield more than chip size. O. S. Cauvel agreed, saying that at the Washington plant at Port Angeles they have a 110-inch chipper running at 250 speed, and are going to change from two knives to four, in order to avoid slivers.

H. S. Mitchell advised good screening equipment as an aid in the chipping plant and to improve yield. After this suggestion, Mr. Killam told how by changing from four to three wires per inch on the second sawdust screens they are now getting large quantities of small chips, which are now burned in the boilers instead of going into pulp, and asked if the assembly thought this was right. The consensus of opinion was that since fuel was an important item at Port Alice, it was

just as well to burn them, since 50 per cent of their cost was recovered as fuel, and they would not help pulp quality.

Upon adjournment a joint luncheon with the ladies was held, and Tom Shields was again called on to entertain with his stories.

W. L. Beuschlein of the Department of Chemical Engineering at the University of Washington, presided at the afternoon session, leading a symposium on sulphite cooking. The correct composition of a cooking acid was the topic of a paper by E. A. Weber, sulphite superintendent of the Oregon Pulp & Paper Co. at Salem, which was read in his absence by Harold Hauff. It will be published in full.

At its conclusion, S. A. Salmonson said that he believed one of the principal parts of acid making is knowing how to burn sulphur. He maintained that most of our trouble in cooking sulphite pulp comes either from chip variation or from the acid.

A. D. Wood said he was convinced that the quality of cooking liquor is not fully disclosed by the present tests used, that there are some factors not taken into consideration, the problem being more involved than ordinarily thought.

Use of Dolomite

M. W. Phelps suggested the use of dolomite, replacing part of the lime with magnesium. Myron Black reported that they have used magnesium at Millwood, 7 per cent magnesium oxide, with 1.00 to 1.10 per cent combined SO_2 in the acid.

Lawrence Killam said that they had tried dolomite at Woodfibre, B. C., and found it dissolved too slowly and caused sludge. With the magnesium stone the pulp was a little better, but the acid making was too slow. The dolomite was finally used up mixed with the usual calcium stone, with satisfactory results.

The methods of testing the degree of cooking in pulp digestion were described by John Hendrickson of the Department of Chemistry, Uni-



LAWRENCE KILLAM

Chairman, Pacific Section of TAPPI
President, British Columbia Pulp & Paper Co.

versity of Washington, and he explained his modified method of lignin determination, which was the subject of an article in the March issue of Pacific Pulp & Paper Industry. In the discussion following, Ralph Hansen questioned the time element of the test, and suggested testing the cooking liquor. He believes the present testing methods may be at fault, he said.

Dr. H. K. Benson, under whose direction Mr. Hendrickson worked out his method, pointed out that making pulp is a 100 per cent chemical process, hence the tests used in connection with it should be chemical instead of physical. Raymond Hatch said he believed the lignin removal test would be ideal, but said that he thought the difficulties in securing representative samples,

etc., would make this test of doubtful usefulness. It would be easier to get a representative sample of the acid, he said, and suggested that the best method might be to determine the amount of organic material in the liquor.

The advantages of forced circulation in cooking sulphite pulp were reviewed by M. W. Phelps of Camas, who read a report on the system that is in operation at the Grays Harbor Pulp & Paper Co. plant at Hoquiam, Wash. The purposes of circulating systems are four-fold, he said: 1. savings in steam (at Camas they are saving 1346 lbs. of steam per ton of pulp); 2. improvement in pulp quality; 3. savings in sulphur through no dilution of acid, and 4. savings in limestone. The Camas installation on No. 10 digester,

which has been in operation for three months, has thicker-walled pipes and better alloy steel than the system at Hoquiam, he pointed out. Disadvantages of the system he listed as high original cost, and the corrosion of heater tubes, etc.

Andreas Christensen, one of the originators of the circulating system at Rhinelander, Wis., who has just come to the coast to be connected with the Grays Harbor Pulp & Paper Co., described this first system. He said that they are cooking at 122 degrees for 15 hours and are getting a pulp equal to the best Mitscherlich. They have had trouble with steels, but there are now available alloys that will stand up when put to the proper use and if kept in condition by brushing out the tubes every three months.

Good Results at Rhinelander

At Rhinelander they are saving 2,000 lbs. of steam per ton, having reduced consumption from 6200 to 4200, he said. Yield has been increased five to six per cent, savings in chemicals have resulted, as well as greater pulp uniformity.

R. E. Chase expressed the idea that the high polish on the inside of the heater tubes was not necessary. Mr. Christensen replied that they have found spots of black scale containing a certain amount of copper which caused corrosion, even on the polished tubes, and that while a reduction of polish is possible, a certain amount is helpful.

The discussion of copper deposits led Dr. Benson to speak of the soil analysis at Grays Harbor which showed up to 17 per cent iron content and a percentage of manganese. The soil has not been examined for copper, he said. W. J. Smith suggested that the copper might be found in the limestone. Carl Braun pointed out that the trouble might be overcome by the insertion of electrodes to neutralize the galvanic effect, similar to the use of zinc bars in marine boilers.

In closing the discussion, Mr. Christensen reported that the experience at Rhinelander was that the installation paid for itself in 18 months through increased yield, which was highly important in view of the fact that peeled spruce wood in Wisconsin costs \$13 to \$14 per cord, and coal costs about \$6 per ton.

Stabilized stainless steels were covered in a paper presented by M. H. Freedman. It is hoped to publish this in full at a later date. At its conclusion, W. J. Smith spoke

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on the welding of stainless steels and methods of testing the welds. Such welds are perfectly safe, he pointed out, with which Mr. Christensen concurred, saying that \$100,000 use and occupancy insurance for four years had been obtained on the Rhinelander installation for \$175, indicating the confidence of the insurance companies in the system.

Harry Richmond talked on steel castings and the additional difficulties of casting alloy steels. C. D. Winter read a report in which it was maintained that the stabilization of the steel was not particularly advantageous; that titanium, sometimes used for "stabilized" steels, is necessary only for high temperature uses. He recommended low carbon content of the steel.

On Friday evening an informal group dinner was held in the main dining room of the hotel, followed by more informal gatherings on the upper decks.

Myron Black presided at the Saturday morning meeting at which Carl E. Braun described the new continuous pulp cooking system patented by himself and A. H. Lundberg. This was the subject of an article in the March issue of Pacific Pulp & Paper Industry, and Mr. Braun's talk was along similar lines.

Mineral Survey Described

The second speaker was J. D. Hull, director of the Mineral Survey of the State of Washington, who told of the mineral products used in the pulp and paper industry which have possibilities of local production. He recommended the development of these resources and their use by the industry so far as possible. His paper will be published separately.

A. H. Lundberg led the discussion and told of the use of pyrites for the production of sulphur. One factory in Norway uses this method, he said, while several in Germany make liquid SO₂ from pyrites. It may be possible to do this here, he said.

Dr. Benson commended the suggestion that the plants use local products and said he thought our local deposits of Glauber salts could be used in place of salt cake.

Topping off the morning session, the icing of the cake, so to speak, was Ray Smythe's business forecast for the future based on a study of the planetary influences. He appeared without his whiskers, tore up his speech before he started, and wore a gardenia in his lapel.

Swinging into his subject in jocular vein, Mr. Smythe kept his audience chuckling all the way through, though his subject was a serious one. He illustrated his talk with charts showing the results of his study of planetary influences on business cycles as far back as 1850, and on the basis of his findings prophesied that business would gain and reach normal in September of this year, continuing above normal throughout 1935, and dropping somewhat again in 1936.

Despite the fact that there appeared to be no confirmed astrologists in the audience, Mr. Smythe's talk was well received, and created much interest.

National Convention Plans

During the business meeting that followed, H. Robert Heuer, convention chairman for the International Convention of TAPPI to be held at Portland in September, reported on the plans afoot to assure a successful gathering, and introduced all of the committee heads. He announced that due to the fact that Mrs. Larrabee did not expect to be on the coast this summer, Mrs. Natwick of Camas had agreed to head the ladies' committee.

Ben Larrabee and C. W. Morden reported to the members on the New York meeting of TAPPI and both expressed the conviction that there would be a larger crowd here for the fall meeting than originally expected.

An expression of appreciation of the Crown Zellerbach men coming into the organization was read into the records, and a telegram was sent to Nils Teren of the Oregon Pulp & Paper Co., who is in a Portland hospital recovering from an operation, wishing him a speedy recovery. On motion of Dr. Benson, the chairman was authorized to appoint a committee to study non-fibrous materials. With the adoption of a motion authorizing the executive committee to set definite times for future meetings so that dates would be known well in advance, the meeting adjourned for a joint luncheon in the Venetian room.

Golf was the order of the day Saturday afternoon, small groups going out to the Rainier Golf & Country Club, since no official tournament had been arranged. The national convention committee met at the hotel during the afternoon and discussed further plans for the fall meeting.

In the evening the usual banquet took place in the Venetian room,

without speeches, and the remainder of the evening was given to dancing in the ballroom.

Thus closed the last Coast TAPPI meeting before the International TAPPI Convention at Portland, which bids fair to be the finest ever held by the technical association, on the Coast or elsewhere.

ROSTER

Killiam, Lawrence, president, B. C. Pulp & Paper Co., Vancouver, B. C.; Thompson, Earl G., Great Western Electro Chemical Co., Seattle, Wash.; Blanchard, S. W., Crown-Willamette Paper Co., West Linn, Or.; Vernet, H. A., Staley Starch Co., Portland, Or.; Francis, A. F., Chromium Corporation of America, Milwaukee, Wis.; Erchinger, Ray, Doran Company, Seattle, Wash.; Lundberg, A. H., Western manager, G. D. Jensen Co., Seattle, Wash.; Smythe, Ray, Portland, Or.; Hansen, Ralph B., Tech. Director, Pulp Div. Weyerhaeuser Tbr. Co., Longview, Wash.; Cox, J. V. B., sales engineer, Paper Makers Chemical Co., Portland, Or.

Gorbett, S. B., Willamette Iron & Steel Co., Portland, Or.; Toovey, T. W., B. C. Pulp & Paper Co., Port Alice, B. C.; Osborne, Wm., chemist, Hooker Electro Chemical Co., Tacoma, Wash.; Cauvel, O. S., sulphite supt., Washington Pulp & Paper Co., Port Angeles, Wash.; Douglas, George, chemist, Washington Pulp & Paper Co., Port Angeles, Wn.; Schmitz, Ferdinand, Rainier Pulp & Paper Co., Shelton, Wash.; Tedrow, A. Ward, Western Bureau of Paper Standards, Portland, Or.

Munger, Thornton, director, U. S. Forest Service, Portland, Or.; Phelps, M. W., chief chemist, Crown-Willamette Paper Co., Camas, Wash.; Shaffer, Ralph, president, Shaffer Pulp Co., Tacoma, Wash.; Wood, A. D., superintendent Shaffer Pulp Co., Tacoma, Wash.; Hull, J. D., consulting engineer, Seattle, Wash.; Morden, C. W., Morden Machines Co., Portland, Or.; Hodges, W. S., Appleton Wire Works, Portland, Or.; Cash, C. R. P., chemist, St. Helens Pulp & Paper Co., St. Helens, Or.; Sawyer, B. W., Foxboro Co., Portland, Or.

Hauff, Harold, chemist, pulp div., Weyerhaeuser Timber Co., Longview, Wash.; Salmonson, Sam, sulphite supt., Crown-Willamette Paper Co., Camas, Wash.; Hessler, J. B., Simonds, Worden, White Co., Portland, Or.; Coster, N. W., chemist, Soundview Pulp Co., Everett, Wash.; Rue, J. D., Hooker Electro Chemical Co., Tacoma, Wash.; Carlson, John M., asst. supt., Soundview Pulp Co., Everett, Wash.; Armbuster, G. J., gen. supt., Soundview Pulp Co., Everett, Wash.; Richmond, H. H., chief engr., Electric Steel Foundry Co., Portland, Or.; Hatch, R. S., Weyerhaeuser Timber Co., Longview, Wash.; Black, Myron W., chief chemist, Inland Empire Paper Co., Millwood, Wash.

Lewthwaite, N. A., National Paper Products Co., Port Townsend, Wash.; Nicholson, F. A., Stetson-Ross Machine Co., Seattle, Wash.; Prichard, W. T., Stetson-Ross Machine Co., Seattle, Wash.; Drew, E. G., J. O. Ross Engineering Co., Portland, Or.; Mitchell, George, Wallace & Tiernan Co., Seattle, Wash.; Peterson, H. T., pulp div., Weyerhaeuser Timber Co., Longview, Wash.; Norman, Sigurd, Sumner Iron

Works, Everett, Wash.; Braun, Carl E., manager, Hawley Pulp & Paper Co., Oregon City, Or.; Hixon, H. J., University of Washington, Seattle, Wash.

Des Marais, H. A., General Dyestuff Co., Portland, Or.; Bailey, Harold R., Union Screen Plate Co., Fitchburg, Mass.; Gieskeing, Fred, Allis-Chalmers Mfg. Co., Seattle, Wash.; Brinkley, James, James Brinkley Co., Seattle, Wash.; Beebe, H. E., Chain Belt Co., Seattle, Wash.; Smith, L. K., Pacific Pulp & Paper Industry, Seattle, Wash.; Moffett, T. E., Hooker Electro Chemical Co., Tacoma, Wash.; Ekholm, Erik, superintendent, Puget Sound Pulp & Timber Co., Bellingham, Wash.; Larabee, B. T., superintendent, pulp div., Weyerhaeuser Timber Co., Longview, Wash.; Heuer, H. R., asst. supt., pulp div., Weyerhaeuser Timber Co., Longview, Wash.; Fretz, Harold, chemist, Olympia Forest Products Co., Port Angeles, Wash.

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Alsop, Fred, Van Waters & Rogers, Portland, Or.; Brown, Harvey, New Jersey Zinc Co., Chicago, Ill.; Beall, R. S., New Jersey Zinc Sales Co., San Francisco, Calif.; Neill, R. J., Haynes Stellite Co., San Francisco, Calif.; Heiss, E. A., Wallace & Tiernan Co., Terminal Sales Bldg., Seattle, Wash.; Benson, Dr. H. K., dean of chemistry, Univ. of Wash., Seattle, Wash.; Shields, T. M., Simonds Saw & Steel Co., Seattle, Wash.; Cousins, D. E., asst. supt. St. Regis Kraft Co., Tacoma, Wash.; Orup, Adolph, Soundview Pulp Co., Everett, Wash.; Cunningham, Eugene, Cascade Machinery Co., Seattle, Wash.

Kinsey, Dr. H. E., Rainier Pulp & Paper Co., Shelton, Wash.; Sams, F. B., Allis Chalmers Mfg. Co., Seattle, Wash.; Conrad, C. S., Columbia Steel Co., Seattle, Wash.; Start, L. M., Rice, Barton & Fales, Worcester, Mass.; Sangster, Otto H., Grays Harbor Pulp & Paper Co., Hoquiam, Wash.; Hegg, Arnold, Grays Harbor Pulp & Paper Co., Hoquiam, Wash.; Gladding, F. A., Soundview Pulp Co., Everett, Wash.; Brown, Dr. R. E., Rainier Pulp & Paper Co., Shelton, Wash.; Shaneman, Fred, Tacoma Electrochemical Co., Tacoma, Wash.

Christensen, Andreas, Grays Harbor Pulp & Paper Co., Hoquiam, Wash.; Bibbins, A. L., Electric Steel Foundry Co., Seattle, Wash.; Smith, C. B., Corn Products Refining Co.; Johnson, Ed., Chehalis, Wash.; Bannon, Thomas, Western Gear Works, Seattle, Wash.; Anunson, Allan, Seattle, Wash.; Caitle, Vicente, Seattle, Wash.; Zimmerman, Arthur, manager, Pacific Strawboard & Paper Co., Longview, Wash.; Hooker, A. H. Jr., Hooker Electro Chemical Co., Tacoma, Wash.

"ON THE CUFF"

"Dad" Wood raised a laugh when he was called on to talk about acid making and said "the chairman must have called on me to discuss this because he thought I could give some facts about the effects of liquor on Wood." . . . Bill Breitenbach of Grays Harbor expected to attend but had to stay home due to a new son who was inconsiderate enough to arrive just the day before the convention. . . . "Castoria" Vernet—they cry for him, says Gob Des Marais. . . . Sam Salmonson gained new fame when Lawrence Killam said of him, "I used to know him as Mrs. Salmonson's husband." . . . By the way, the best story told at the meeting was about the time Earl Knapp got locked out of his hotel room in the dead of night—no, we won't tell it; you ask him. . . . Here's news for you, believe it or not, Fred Shaneman's baby bit the dog and right on the schnozzle. . . . In the Great Chromium Lottery for the cocktail shaker, in filling out the card and answering the question "What Wanted", Bill Zimmerman put down "A Blonde." . . . Walter Hodges arrived in Seattle with a new and shiny Nash, and Mrs. Hodges in a new bonnet, or rather, bonnets. . . . Harold and Gretchen Hauff made the occasion one for a big family reunion, both of their tribes living here in the Queen City. . . . And did you know that Bill Osborne of Hooker Electrochemical is a musician and composer of quality? . . . he studied at Boston Conservatory and his latest song is entitled "Shoestrings"—listen in on KOMO. . . . One of the big hits was brushing up on the official TAPPI song, "In Bohemia Hall," which is a real rafter shaker. . . . John Hessler of Simonds-Worden-White had to leave the convention early to catch the train for the factory at Dayton, his first trip there. . . . Just after a toast to Al Quinn's new son came the prize faux pas of the meeting. . . . Mrs. Ralph Hansen promised herself a throat slitting bee if it were printed, so, ye editor being a timid soul, you'll have to find out for yourself. . . . Mrs. Petrie mistook Palmer Lewis for someone else, and later, when introducing a crowd, came to him and said, "Oh, here's the fellow who isn't the man I thought he was." . . . Another good convention song was "The Dutch Company." . . . Bill Zimmerman came to the meeting right after a trip to Samoa and San Francisco aboard a freighter, travelling as super-cargo. . . . The newest arrival in the Coast industry was there, Andreas Christensen, from Rhinelander, who has joined the Grays Harbor Pulp & Paper Co. . . . and he made a lot of friends, too. . . . The loudest and longest singing Friday night came from Fred Shaneman's room, attracting the strongest lungs in the hotel hither, and gaining room 611 the title of "the rumble seat." . . . What we would like to know is how Earl Thompson explained things when he got home with his clothes torn. . . . Things are getting serious and something ought to be done about it, when Arthur Chromium Francis shows up at two conventions in succession with the same girl. . . . Ralph Hansen roused applause when he said, in criticising present testing methods, that some fellows thought the best way to test pulp was to make a sheet, chew it, fold it, tear it and jump on it, and he wasn't sure but what they are right. . . . Alex Duncan couldn't be there but J. V. B. Cox (one of only two present with the distinction of three initials), was on hand as usual. . . . some day we're going to memorize what all three stand for. . . . The other was C. R. P. Cash from St. Helens. . . . T. W. Toovey came all the way from Port Alice to attend, and everyone was mighty glad he did. . . . A feminine voice was heard to say "They certainly grow handsome men in B. C." . . . O. S. Cauvel of Washington Pulp & Paper won the cocktail shaker, and on his first trip to a TAPPI meeting in a long time. . . . he brought George Douglas, chemist at the plant, with him. . . . For the first time in two years, Ralph Shaffer attended as an active pulp maker, and mighty glad to be in that category again. . . . Ray Smythe had his fancy dressing gown along again and, of course, his bath towel turban. . . . Among the C-Z men who were back with TAPPI and whose presence was much appreciated was M. W. Phelps, chief chemist at Camas, S. W. Blanchard from West Linn, O. S. Cauvel and George Douglas of Washington Pulp & Paper, N. A. Lewthwaite of Port Townsend. . . . and there was Harold Fretz of Olympic Forest Products, Dr. H. E. Kinsey, Ferdinand Schmitz, and Dr. R. E. Brown from Rainier Pulp and Paper at Shelton. . . . From Grays

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Harbor came Otto Sangder, Arnold Hegg and Andreas Christensen. . . . The Original Bill Bailey, who "accepts" orders for Union screen plates, came the furthest distance, clear from Fitchburg, Mass. (Harold is the first name, in case you care for it). . . . Another distance man was L. M. Start of Rice, Barton & Fales from Worcester, Mass. . . . And another Harold was H. E. Beebe, who answers best to the name of Rex, short for Chain Belt. . . . For them as didn't know it, Halvar Lundberg's first name is Alrik. . . . A. Ward Tedrow of the Western Bureau of Paper Standards, Portland, entered his subscription to PP&PI during the convention, and let that be a lesson to the rest of you. . . . This time Al Hooker brought his

wife with him, more power to him. . . . Also Tom Moffett of whom some one was heard to murmur "A Yale man, I'll bet." . . . For the first time at a TAPPI meeting the name Soundview Pulp Co. appeared on the registration, and they sent a goodly crew, including N. W. Coster, John Carlson, G. J. Armbruster, Adolph Orup and F. A. Gladding. . . . G. J.'s son, F. R. Armbruster, who has just graduated from the Department of Chemical Engineering, U. of W., was on hand for the meeting before starting work in the Weyerhaeuser lab. . . . Bob Heuer didn't bring the better half this time, but there are plenty of witnesses to the fact that his behavior was excellent (no charge). . . . Carl Braun said that Braun meant Brown in German but

that he is Swedish, so it's still Braun. . . . Gob Des Marais was unanimously adopted as official TAPPI singer. . . . The Great Mystery of the meeting was "What's Ben Larrabee going to do?", but Ben kept 'em guessing. . . . Fred Alsop was on deck as usual, but the crowd missed his side-kick, Sid Rasmussen. . . . Denny Cousins came over from Tacoma to brush up on his stuff before he forgets how pulp is made . . . right now he's got his plant all dressed up and no place to go. . . . Tom Bannon didn't get time to make a speech, which was the convention's loss, because Tom has been public speaking on the sly and is now as smooth as the running of his gears . . . and that's not sarcasm.

THE CORRECT COMPOSITION OF A COOKING ACID*

By E. A. WEBER †

The subject of this paper is: "The Correct Composition of a Cooking Acid"—a rather positive sounding term, which, at first glance, would seem to lay down a hard and fast rule for a cooking acid, under all conditions and in all cases. However, this is not the case. It is the aim of the writer to state his idea of an ideal cooking acid and to suggest possible reasons why, under given conditions, it may be advisable to adopt different methods of procedure, leaving these points to the discussion of the committee.

Cooking is essentially a solvent action. From a chemical viewpoint we may consider our wood as an impure chemical from which we desire to remove the impurities—a process of solution, decomposition, hydrolysis—and the cooking acid is the hydrolytic agent, and the foremost consideration must be given to penetration. It is, therefore, apparent that, within limits, the acid should be of a fairly high concentration, for we know that an acid of high concentration accelerates the action, namely, penetration, but in actual practice we are limited as to the highest point of concentration we can obtain by the recovery facilities and other equipment of our

particular plant. Therefore, practical efficiency of operation determines the composition of our acid.

It is the opinion of the writer that a cooking acid of total SO₂ 6 percent, free SO₂ 4.75 percent, combined SO₂ 1.25 per cent is an ideal cooking acid, easy to maintain at a minimum loss of chemicals and without any expensive recovery equipment. Such an acid is of a high enough concentration to give all around satisfactory results, even in mills cooking wood with an extremely high moisture content. However, the writer wishes to emphasize the fact that where this is economically possible, where mill conditions and equipment permit this, it is advisable to go to a higher concentration of the cooking acid, but keeping the combined SO₂ down to 1.25 percent, for it is a well known fact that an acid of high concentration produces a pulp much lighter in color. This is a very great advantage—whether the mill makes bleached or unbleached pulp, and the advantages of such an acid are many. Here are a few:

1. Better penetration.
2. Lower percentage of screenings.
3. Better color of the pulp.
4. Shorter cooking period (if needed).
5. Lower temperature.

It is hardly necessary to point out the damage of excessive temperatures at any point during the cooking period, particularly at the last half. Such an acid is equally economical, whether the cooking is carried on by manual control, where the operator is the medium of good circulation, if he is lucky, or whether the mill is equipped with one or more of the recent improvements such as Chemi-Pulp, Forced Circulation with or without indirect heating.

HISTORY OF MANHATTAN PAPER MEN

The Hurlbut Paper Co. of South Lee, Mass., recently published another issue of their "Papermaker Gentleman", containing a historical account of the early papermakers and merchants of Old Manhattan. It is a high interesting story of the early paper days in New York and is a worthy contribution to the records of the industry.

W. C. MILLS JOINS GREAT WESTERN

W. C. Mills, formerly with the General Chemical Co. in San Francisco, is now with the Great Western Electro Chemical Co. in the same city in a sales capacity.

*Presented at the Spring meeting of TAPPI, Seattle, Wash., April 6-7, 1934.

†Sulphite Superintendent, Oregon Pulp and Paper Co., Salem, Ore.

BARKING WESTERN LOGS IN THE THORNE BARKER*

By T. W. TOOVEY, A.M.E.I.C.†

The Thorne barker, designed by the Canadian Allis-Chalmers of Toronto, was installed in the Port Alice plant of the British Columbia Pulp & Paper Co., Ltd., in 1930. Since the Thorne barker has now been operating successfully for three years, it is intended in this paper to give a few facts on the operation and to discuss the advantages derived by handling logs by this method. As the runs, due to the supply of suitable logs, have been intermittent, averages of these runs have been taken, and the results are reported in percentages.

Barking the whole log is in no sense a new method of handling logs. Thorne barkers in Europe, built to handle small logs of 6 to 10 inches in diameter and 3 feet long, have been in operation for many years. On this continent, in eastern Canada and the United States, many Thorne barkers handle logs of 6 to 10 inches in diameter and from 4 to 16 feet long. Yet, until the Thorne barker was installed in Port Alice, western logs had not been handled by this method. The exceptional size and weight of western logs necessitated certain changes in the construction of the barker to permit it to handle logs up to 30 inches in diameter and 10 feet long. When this was accomplished and the installation was completed, it was found that the Thorne barker could deal with the large logs just as efficiently as it handled the small logs of the East, see Wharton (1).

Although the practice of barking logs by the Thorne method is very common, a brief description of the process before details are discussed may help to make it clearer. The Thorne barker itself consists of a large steel tank divided into three pockets.

Logs are fed into the first pocket, rotate there, and are forced to the second pocket by suitably shaped cams and pressure of new logs. From the second pocket they are forced to the third pocket where the barking is completed. At the edge

Abstract

The operation of the Thorne barker when dealing with Western wood, and the advantages derived when handling logs in this manner.



T. W. TOOHEY

of the third pocket they are inspected, and the clean logs are sent along a conveyor to the woodroom. The time of barking is controlled by the rate of addition of logs to the first pocket.

Methods of Barking

The cleaning of wood for the manufacture of high grade bleached sulphite pulp is a problem of great importance. It may be divided into two major operations: first, the removal of the outside bark, and second, the removal of knots and decayed wood.

To remove the bark from large logs economically is difficult. It may be done (1) by hand; (2) with some form of knife barker; or (3) by mechanical barkers, such as the Thorne barker and drum barker.

(1) Barking by hand. Hand barking with knives is the oldest and most primitive method of removing the bark from the log. It has fallen into disuse on this continent be-

cause of the high cost of manual labor. However, it is sometimes still used for spring-fallen wood. Providing the bark is easily stripped, it is still economically possible in some districts due to the increasing cost of wood.

(2) Knife barking. The majority of wood must be barked mechanically owing to the high rate of consumption. In the West, the commonest form of barker is the rotating knife barker. This necessitates the cutting of the logs into suitable sizes so that the cants may be handled without difficulty. Owing to the length and diameter of the logs handled, the arc of the bark covered section varies considerably, and knives with fixed radii are, of necessity, wasteful. This has been overcome in some types by having the knives adjustable, but the waste is then dependent on the skill of the operator. There is also a tendency, especially with the disc type of knife barker, to remove knots and in-grown bark together with the outside bark. Losses from this may be anything from 12 percent to 35 percent, depending on the operator and the size of the cant he can handle conveniently.

(3) Mechanical barkers. In this type of barker, the bark is removed by the friction of the logs rubbing against each other. The Thorne barker, however, has the following advantages over drum barkers.

(a) The logs are moved in an organized manner, and the energy spent on barking is utilized rationally.

(b) It is possible to remove the logs as soon as they are barked, thereby reducing the loss in slivering.

(c) It does not broom the ends of the logs, and, therefore, the wood is cleaner.

In drum barkers a loss of as much as 5 percent has been found due to brooming.

(d) The bark is removed before any considerable amount of sawing is done. In sawing an unbarked log, the saw often carries particles of bark with it and imbeds

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*Presented at the Spring meeting of TAPPI, Seattle, Wash., April 6-7, 1934.

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them in the wood. These particles remain even after chipping and cause difficulty in obtaining clean pulp.

Although the bark is relatively easy to strip from small logs, it was thought that the heavy bark of western logs would present a difficult problem. This, however, did not materialize to the extent anticipated. The weight of western logs is so great, and the rubbing action in the barker is so positive, no difficulty arose. The heavy bark comes off in great flakes leaving the valuable pulpwood, lying immediately beneath it, intact. It is needless to say that much of this pulpwood just underneath the bark is unavoidably lost in knife barking.

Brooming, which is so detrimental to clean pulp, is completely avoided in the Thorne barker. The rubbing action takes place around the sides of the log, and the end is free from any friction sufficient to damage it.

The removal of knots and decayed wood can never, of course, be accomplished by any type of barker. This must be done later after the bark has been removed.

Wood for the Thorne Barker

The booms received at the mill consist of western Hemlock (*Tsuga heterophylla*) and Balsam (*Abies amabilis* and *Abies grandis*). The logs range from 9 to 44 inches in diameter at the small end.

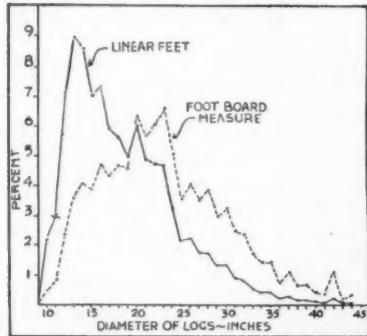


Fig. 1

Graph showing percentages of sizes as received in booms from the logging camps. Foot board measure calculated on British Columbia scale.

It will be seen from Fig. 1 that the greater percentage of the linear feet received is in the sizes which are suitable for barking in the Thorne barker. Fig. 2 shows the analysis of an actual run in the barker.

Although the barker was built to handle logs as small as 12 inches in diameter, up to logs as large as 30 inches in diameter, the best results

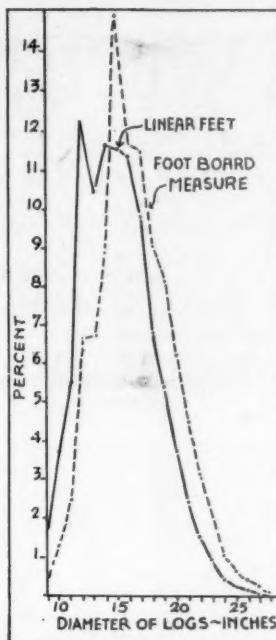


Fig. 2

Graph showing logs actually barked in the Thorne barker. Foot board measure calculated on British Columbia scale.

are obtained when logs of approximately the same diameter are run together. If very small logs are barked together with logs of the largest diameter, the larger logs receive a rougher treatment than necessary.

The booms from the logging camps are broken up in the log pond, and logs of approximately the same diameters are fed to the barker. These logs, 40 feet long, are floated in groups of three to five to a steel cable parbuckle, which raises them from the tide water and deposits them on a sloping log deck.

Description of the Thorne Barker System

The existing log haul for the sawmill was of insufficient elevation to be used for the barker. Also, at its maximum speed, its capacity would not be great enough to feed the barker. Therefore, a parbuckle was decided upon. This parbuckle consists of four steel hoisting cables spaced at 10-foot intervals. These cables are wound on 24-inch diameter drums. The drums are driven by means of a 50 h.p. motor fitted with a solenoid brake, a reduction gear, and a roller chain drive to the drum shaft. This arrangement proved very satisfactory, raising loads of three to five logs 20 inches in diameter and 40 feet long, from low water level, a lift of 51 feet, in 1 1/4 minutes. The logs roll down a sloping log deck by gravity to the loader, where they are loaded singly on to the barker conveyor and check scaled. They are then passed to the cut-off saw and are sawn into 10-foot lengths. The cut-off saw is 84 inches in diameter, and has a peripheral speed of 13,700 feet per minute. Although this speed is high for a saw of this type, it has given good service, and a saving of time has been obtained. From the cut-off saw the logs are conveyed to the first pocket of the barker.

How the Barker Works

The barker consists of a structural steel tank 11 feet 6 inches wide and 54 feet long. This tank is divided into three irregular pockets, at the bottoms of which slots are provided to permit the passage of four specially shaped cams. These cams are made of steel and are driven by mechanical barkers, such as the steel spur gear 8 feet in diameter with a 3-inch pitch. The cams revolve at 14 r.p.m. Each of the three sets of cams is set at an angle of 60 degrees ahead of the other in order to reduce the peak load on the motors. The three shafts and their respective driving gears are coupled through pinions and three sets of beveled gears to a common line shaft running at approximately 300 r.p.m. The line shaft is driven by means of a 27-rope Texrope drive from two 250 h.p. motors connected by a short jack shaft. The action of the rotating cams is to raise and lower the mass of logs in each pocket. In doing so, the logs are rubbed against each other, and the friction loosens the bark. At the same time as the logs are rotated, a wave-like motion is also obtained, forcing the logs over the dividing partition into the next pocket. The addition of fresh logs displaces the logs partially barked in the first pocket, to the next pocket. The logs move over the partition in groups of two and three. The bark, which is rubbed from the logs, drops to the bottom of the pockets. This is facilitated by high pressure overhead water sprays. A considerable amount of water is necessary to carry the refuse through quickly so that it does not interfere with the barking process. The bark drops through the slots which are kept clear by the motion of the cams. Flumes beneath the barker convey the refuse to a rotary "de-watering" screen. Here the excess water is removed to put the refuse in a suitable state for use in the boiler house.

To separate the outgoing logs coming from the third and last pocket, two stop posts are fitted on the apron of this pocket. By means of these the operator has an opportunity to examine the log. If it is properly barked the posts are lowered and the log passes over hinged cut-out arms on to a twin strand conveyor chain leading to the woodroom and the chippers. The instantaneous action of the log stop prevents more than one log being delivered at a time. It is interesting to note that the twin chain conveyor to the woodroom used on this installation is without attachments. No difficulty has been experienced in handling round logs on a smooth chain with approximately an 8 percent grade. The conveyor is 375 feet long and is split in the center with independent drives for each section.

Re-Barking

If the log is insufficiently barked, the hinged cut-out arms are raised, and the log is dropped on to a continuously running roller bed. As the live rolls to the return conveyor are approximately three feet lower than the woodroom conveyor, it is necessary to provide some means of diminishing the shock of the falling log. This is done by means of a cradle just below the cut-out arms. The steel cradle is supported by two low pressure water cylinders and rams. These rams, which are hollow with open bottoms, are kept full of air. The confined air in the rams acts as a cushion for the impact. The operator then lowers the log to the live rolls by means of a quick-acting valve which allows the water to escape. From the live rolls the log is kicked on to a return log conveyor which delivers it to the original feed conveyor for re-barking. The speed of the return conveyor is slow enough to allow protuberances, which hinder the barker, to be removed.

The barked logs which have been delivered to the woodroom conveyor are again examined for indications of knots and internal dirt. The logs passing this examination are sent directly to the Karlstad chipper. This chipper is a K. M. W. round wood chipper, size 111, which has a cast steel disc 118 inches in diameter and is fitted with four knives. The disc is belt driven by a 250 h.p. motor at approximately 137 r.p.m., giving 550 cuts per minute. The cast steel spout, 26 inches wide, is fitted with a bumper connected to an air cylinder. The shock of the log falling down the



Looking down into the barker as the logs are going through it, with the showers turned on.

chute is absorbed by the air cylinder, and the chipper disc is saved from damage.

Logs showing indications of knots and internal dirt are sawn into three lengths by a cut-off saw. These pieces are passed on a cross conveyor to the steam splitters. The dirt, thus exposed, is removed by knotting saws, and the cleaned wood goes to the small chippers.

Comparison of Log Cutting

Prior to the installation of the barker, all of the logs were passed through the sawmill and cut up into cants suitable for hand barking. It can be readily seen that the amount of sawdust from the saw kerf is high in comparison to the amount of solid wood. When handling logs up to 21 inches in diameter at the small end, the saw will cut through 72 percent of the linear measure, but only 45.5 percent of the volume of the total wood. The small logs also have a greater percentage of cants having outside bark. This again means a greater loss in hand

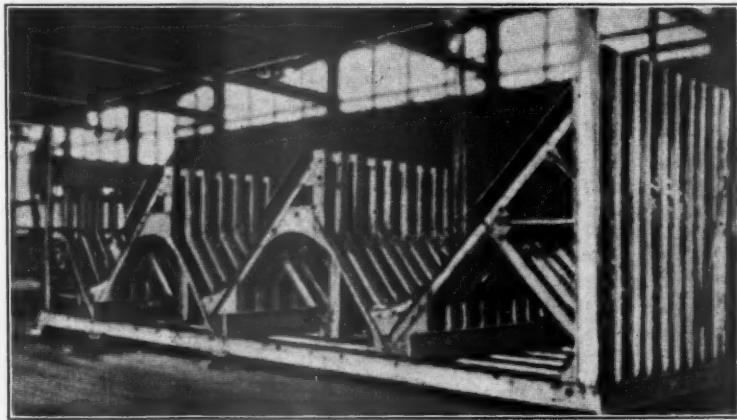
barking and in labor costs in extra handling. It can be seen that a log passing through the sawmill receives, in the case of an average log 20 inches in diameter and 40 feet long, two longitudinal cuts by the head saw and four longitudinal cuts by the edger saw. The clean cant will then be cut transversely into 6 foot lengths while the six outside cants will be cut transversely into 4 foot lengths. This gives a total of 70 cants, of which 10 are clean and 60 require handling and treatment by hand barkers.

A similar log passing through the Thorne barker receives four transverse cuts by the cut-off saw and is barked in four pieces. If clean, these pieces go directly to the chipper. If dirty, they are cut in three pieces of approximately 3 feet 4 inches in length by a cut-off saw and split. The majority of the split pieces goes directly to the chippers. Those that contain knots and ingrown bark are passed to the cleaning deck. The handling is thus cut to a minimum.

Barking and Saw Kerf Losses

Some tests have been made to ascertain the comparative wood losses of the sawmill and the barker systems. Owing to the variations of the logs and the difficulty of running an accurate check, the figures given are only approximate. They agree closely, however, with figures obtained by other means. Difficulty was also encountered in computing accurately the volume of wood when using the British Columbia scale. The losses were computed from the Brereton scale.

All of the sawdust from the saws and all of the refuse from the hand barkers were weighed for a specific period. The logs which passed through in the same period were measured, and their volume was computed. From these figures, it



Barker in course of construction, showing the form of the pockets.

PACIFIC PULP & PAPER INDUSTRY

was found that 18.9 percent of the total wood cut in the sawmill went to the fuel bin as sawdust, hand barker refuse or hog fuel. On the same basis, the Thorne barker showed an overall loss of 4.6 percent. Actually the loss of wood in the barker is negligible. The 4.6 percent loss represents losses from the removal of knots and dirt. To this figure should also be added the fact that the barker refuse is in a much wetter state than the sawmill refuse. The value of the loss depends entirely on the economic conditions of the particular mill.

It is significant that more than forty-two Thorne barkers are in use in Europe, see Klein and Kurzhals (2), where pulpwood costs are relatively high and a maximum utilization of wood is an economic necessity for successful operation.

Comparisons of Output, Labor and Power

To appreciate the savings obtained by the use of the Thorne barker, a comparison of output, labor and power consumption is given.

The output of logs from the Thorne barker over a period of 200 working hours was 1.8 10-foot logs per minute, or 176 f.b.m. This does not allow for time lost in temporary stoppages. Timing short periods during a run gave an average of 2.7 logs per minute continuous

running, or 264 f.b.m. per minute. The sawmill output over a similar period gave 1.86 logs per minute, or 292 f.b.m. per minute. The increase of f.b.m. per log was due to the larger logs now handled in the sawmill.

In the sawmill system 57 men are employed. In the barker system, however, only 29 men are necessary. For the same amount of wood cleaned, the barker shows a saving of 15 percent in man hours. If, however, the barker was run continuously, i. e., 2.7 to 3 logs per minute, a saving of 69 percent in man hours would be possible. This requires an adequate storage for barked logs.

The power consumption by the two different systems may be compared from the following figures.

A deduction of 25 percent from the installed h.p. gives a close approximation of the actual consumption.

H.P.	
H.P. installed in sawmill	1,842
Less 25 percent	461

Actual sawmill consumption	1,381
Number of motors	30

Similarly a deduction of 25 percent from the installed h.p. in the Thorne barker system, excepting the barker, gives the following consumption:

H.P.	
H.P. installed in Thorne barker system	1,115
Less barker h.p.	500
	615
Less 25 percent	154
	461

Number of motors 18

The barker requires 470 h.p. when starting under load, but runs with an approximate average consumption of 280 h.p.

Therefore, the actual consumption of the Thorne barker system equals 461 plus 280, or 741 h.p. This shows a saving of 46.3 percent together with a 40 percent saving in the number of motors, thus reducing the maintenance costs.

The steam consumption of the Thorne barker system is slightly higher owing to the use of steam splitters. This amounts to 200 lbs. of steam per 1,000 f.b.m. cut, but, allowing for the increase in the yield of chips from the barker logs, the difference drops to an increase of only 30 lbs. of steam per ton of pulp produced.

Summary

It has been shown that by installing a Thorne barker system for the handling of western logs, a considerable saving may be obtained. After a period of three years of operation, the Thorne barker system has proved to give the following advantages in comparison with the original sawmill method of handling wood for the manufacture of high grade bleached sulphite pulp:

(1) An actual saving of 19.5 percent in wood.

(2) A saving of 15 percent in man hours per unit of wood, with a possible saving of 69 percent.

(3) A saving of 46.3 percent in electrical energy consumed.

(4) By chipping the logs whole, more uniform chips have been obtained, facilitating cooking.

Acknowledgements

I should like to acknowledge the assistance received from Mr. W. A. Bain, engineer in charge of construction under the supervision of Mr. W. L. Ketchen, and to thank the British Columbia Pulp & Paper Co., Ltd., for permission to publish this material.

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- (2) Klein, H. and Kurzhals, E. Papier fabr. 28, No. 41: 645-653; No. 42: 661-669; No. 43: 678-681 (Oct. 12-26, 1930).

Andreas Christensen Joins Grays Harbor

Andreas Christensen, for the past twelve and a half years superintendent of the sulphite department of the Rhinelander Paper Co., Rhinelander, Wis., resigned this position April 1 to become affiliated with the Grays Harbor Pulp & Paper Co. at Hoquiam, Wash.

The long experience of Mr. Christensen in the industry, and his extensive knowledge of sulphite pulp making make him a valuable addition to the Coast industry, and he has been welcomed with enthusiasm by brother pulp makers in the West.

At Rhinelander, Mr. Christensen was active in building the first indirect cooking and circulating system which is now coming into successful operation out here. For four years prior to his connection at Rhinelander, he was with the Whalen Pulp & Paper Mills, Vancouver, B. C. and with Pacific Mills, Ltd., of Ocean Falls, B. C., as superintendent

of sulphite mills. During that period he joined the Canadian Engineers and served overseas.

Mr. Christensen will make his headquarters at the Hoquiam plant for the present, but will no doubt be called on to work on problems of some of the other mills in the future. He arrived at the Grays Harbor plant the first week in April and after being there for but two days, came to Seattle where he attended the TAPPI meeting.

Fellow workers at the Rhinelander Paper Co. honored Mr. Christensen at a farewell dinner on March 24, which was attended by a great many friends from throughout Wisconsin and Michigan. He left behind him in Rhinelander a host of friends, and took with him many good wishes for success in his new position.

Sigge Ekman, chief chemist, has taken over Mr. Christensen's duties at Rhinelander. No successor for Mr. Ekman has yet been named.

Ben Larrabee Resigns From Weyerhaeuser's; Succeeded by Norman Kelly

B. T. Larrabee has resigned as superintendent of the pulp division, Weyerhaeuser Timber Co., Longview, Wash., his resignation being effective May 1.

W. Norman Kelly, who has been assistant superintendent of the plant



B. T. LARRABEE
Who Has Resigned
As Weyerhaeuser Superintendent

since it started operations in November, 1932, has been promoted to the superintendency, it has been announced by R. B. Wolf, manager.

Mr. Larrabee has not yet announced his future plans beyond saying that for the time being he will be in business for himself, handling machinery lines. He is expected to drive East in May, after which further announcement may be made of his future connections.

He came to the Weyerhaeuser organization at the time the mill was built from the Olympic Forest Products Co. at Port Angeles. Previous to this he held responsible positions with eastern mills.

Mr. Kelly is a product of the West Coast industry, having received his training in the Pacific Northwest. He came to the Weyerhaeuser plant from the Grays Harbor Pulp & Paper Co. at Hoquiam, Wash. Although a young man, his experience has been considerable, his ability marked, and he comes to his new post of responsibility with the good wishes of his many friends throughout the industry.

PACIFIC WAXED PAPER CO. MAKES IMPROVEMENTS

The Pacific Waxed Paper Co., which moved into its new Seattle plant several years ago, has recently completed some new additions and improvements which make it the last word in this type of plant.

A new type waxer has been installed for manufacturing transparent bread wrappers of greater transparency than heretofore possible. The press room has been enlarged and a new 36-inch four color press put into operation, making the printing plant more flexible and permitting a new perfection in printing work.

In addition, a new plate room has been built, 60 by 40 feet in size, and complete equipment installed for making stereotypes. This work was formerly done in outside commercial shops, and better results are now expected since the new shop is especially designed for their particular work and will specialize on it.

Allen Engle, president of the company, returned to Seattle early in April, after a three weeks' trip in California, looking after their southern business.

B. C. CHEMISTS DEVELOPING PROCESS TO USE MORE HEMLOCK IN NEWSPRINT

University of British Columbia chemists report that they have made considerable progress in developing a formula for the increased utilization of hemlock in newsprint pulping processes. When the mechanical difficulties are overcome so as to make commercial production possible, the achievement will be hailed as one of the most important in the technical advancement of the industry on this coast. The experiments have been financed largely by the Powell River Co., Ltd.

Newsprint mills have been seeking a means of making greater use of hemlock for some years, as there is far more hemlock in British Columbia than spruce, which is now the principal base used. If the ratio of spruce and hemlock used in newsprint manufacture could be converted into about 20-80 the actual stand of the two species in B. C. forests would be approximated. Chief difficulty in using hemlock has been that it has a tendency to darken the newsprint. Chemists have worked out a laboratory formula which eliminates this defect.



W. NORMAN KELLY
New Weyerhaeuser Superintendent

OLYMPIC FOREST PRODUCTS MACHINE BEING IMPROVED

The Minton vacuum drying machine at the Olympic Forest Products Co. plant at Port Angeles, Wash., is being improved by several new additions to the machine. A Beloit suction press is being installed to gain economy in drying and to lengthen felt life. It is also believed that the sheet has improved qualities such as beating up better, after going through a suction press.

Two new stacks of open dryers are also being installed on the wet end of the vacuum dryer, to improve pulp quality. This will enable the use of lower drying temperatures, and assure fewer breaks in the vacuum machine. It is another example of the trend toward easier conditions of drying in making high quality pulp. Rice, Barton & Fales are making the new dryer stacks and are installing the suction press.

The new improvements will not speed up the machine.

NO PAPERS SERVED YET IN SOUNDVIEW SUITS

A suit filed in San Juan County by prosecutor Sam Buck against the Soundview Pulp Co., seeking to oust them from possession of the Everett plant, is at present at a standstill and apparently will be until the prosecutor takes further action, on the basis of an investigation he has been making.

Papers have also not been served in a similar suit filed in Seattle, and it is not known whether or not the case will ever come to trial.

Proposed Restrictions Menace Coast Pulp Industry

Recent proposals to place restrictions on the installation of new equipment that will increase production in the pulp and paper industry indicate the growing danger of extending the repair of the industrial and economic machine to the tinkering stage.

There is some justification for certain factors in the paper industry wishing to restrict further expansion in a field already over-crowded, but to extend such restrictions to the pulp industry and to newsprint, branches in which present domestic capacity is far below domestic demand even in sub-normal times, is the height of fallacy.

The picture of a manufacturer going before a jury of his competitors for permission to carry out his progressive plans is hardly in keeping with the spirit of American business. For a pulp manufacturer to be required to seek approval for a new pulp mill from a code authority composed largely of paper men on whom he is dependent for his market, or who may be in some sense of the word in a competitive position, would be an anomaly hard to justify on any logical basis.

The proposed restrictions would place in the hands of a few men of the industry the power to secure refusal of an application to build a pulp mill, or to delay it almost indefinitely.

Inasmuch as the major future expansion in the sulphite pulp industry will take place on the Pacific Coast, extending the restrictions to this industry would in effect be a blow aimed directly at the Pacific Northwest. Members of Congress from this region are alive to the situation, as indicated by the letter of April 3 from Senator C. C. Dill to Pacific Pulp & Paper Industry, in which he says, "I have had this up with the President and also with General Johnson and I sincerely hope we can bring about a larger development along this line in the Northwest."

At the present time no operator knows what new restriction will be placed on him tomorrow. All is uncertainty and doubt, and while this condition exists there can be no constructive progress. Several projects under way for pulp mill construction are virtually at a standstill and cannot go ahead until the unknown factor becomes the known.

The practical effect of all this is that progress in the domestic industry is faltering and foreign producers are reaping the harvest. They will continue to do so as long as this situation exists. During a period when pulp and newsprint producers should be bending their efforts toward supplying a greater portion of the growing domestic demand and thereby throw the full force of their production capacity against unemployment they are forced to spend their time opposing the threat of new handicaps.

It is high time that our pulp makers be permitted to get at the business of making pulp instead of knocking at official doors.

ANOTHER QUINN

Another young man arrived March 17 in the household of A. S. Quinn, secretary of the Pacific Section of TAPPI, who puts in digester linings in his spare time.

The latest Quinn is the third of the noble tribe. As we go to press he had not yet been named, but the choice was wavering between Joseph Patrick (Pat after Al's grandfather) and Joseph James (after his maternal grandfather). There has been a Joe Quinn in the family for four generations, so the long line will be unbroken.

Al was at Powell River when the stork arrived, stealing a march on the old man.

PLANS FOR SUPERINTENDENTS ANNUAL CONVENTION COMPLETE

K. E. Terry, general convention chairman for the fifteenth annual convention of the American Pulp and Paper Mill Superintendents Association, has completed the tentative program for the big event at Poland Springs, Maine, on June 20, 21 and 22, which promises much to all those who attend.

Wednesday, June 20, will be play day, and there will be play of all sorts—golf, fishing, mill visits, and a sports jamboree in the evening. The convention will officially open Thursday when papers will be presented, exhibits examined, and group meetings held. A costume dance party will be held in the evening.

More papers will be presented on Friday, there will be the Question Box, and the usual business session

for election of officers, etc. A banquet in the evening will close the convention.

For the entire week the famous Poland Spring House will be used exclusively by the superintendents and their guests.

RAINIER LEASES OYSTER BEDS

A lease agreement that promises a more scientific study of the effect of sulphite liquor on oysters was consummated recently when the Rainier Pulp and Paper Co. leased from Mrs. Martha Deer and the heirs of the estate of J. H. Deer all of their tide land property located near Oakland Bay on Hammerslys Inlet.

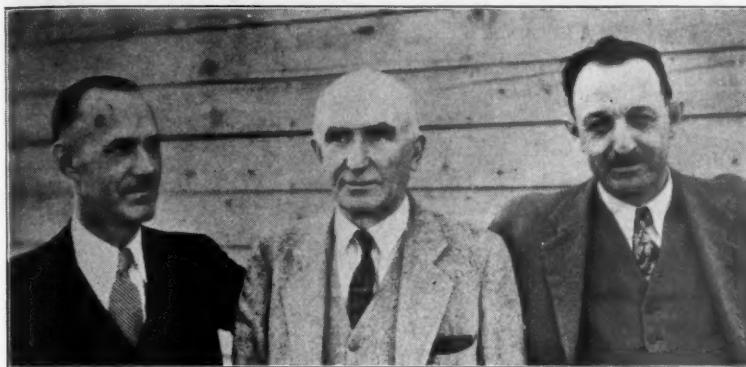
The contract signed leases to the pulp mill all oysters, oyster beds, shellfish and improvements on the property for a period of five years, starting the first day of November, 1933. The lessee also has the privilege of renewing or extending the period beyond the terms of the lease.

The Rainier Pulp and Paper Co. have agreed to spend at least \$1,000.00 per year in the care, cultivation and improvement of the land and shall have the exclusive control and possession of all leased property to make such improvements and alterations that they may deem necessary. During the course of the lease the pulp mill will probably conduct an extensive experiment campaign.

The lessee has an option at any time during the period of the lease to purchase the Deer property for a sum in the amount of \$40,000.00.

Along with the lease agreement was executed a release agreement in which the Deer heirs released the Rainier Pulp and Paper Co. of all causes of claims or damages they might have suffered in the past.

The total acreage included is over thirty, part of which is natural oyster seed grounds which originally were large producers of seed as well as mature oysters and are very favorably located for carrying out the tests to determine the causes responsible for killing off the native oysters and their failure to get another good start in the bay. The oyster lands have not been cultivated or cared for during the past six years and are in badly run down condition, as are most of the oyster grounds in the bay due to inability of the owners to spend enough money to give the oysters a fair test. The pulp company plans to do this on the Deer grounds and the results obtained will be followed closely by other oystermen.



Left, Arthur Berggren; Center, A. D. Wood; Right, Ralph Shaffer.

Shaffer Starts Up; Makes Good Pulp With Acid 26 Months Old

Pulp making started again at the Tacoma mill of the Shaffer Pulp Co. on March 23. The first pulp was turned out March 24 and was put on the machine on the 25th. Runs for the first several weeks were an average of 48 to 50 tons per day, although production will shortly be stepped up to the usual 60 tons every 24 hours.

The plant shut down the first week in April to permit an increase in the height of the stacks as an aid to the steam plant. Two boilers were not completely repaired when the plant started up, handicapping the cooks for steam, but they were to be ready by April 12. All new brick work has been installed in the steam plant.

Improvements have also been made in the cut-up mill and the acid system. Minor alterations have been made in the screen room and on the drying machine. The main office has been moved from its previous location near the box factory to a site adjoining the pulp mill. Beside it is being built a new central machine shop, 60 by 80 feet, which will be a big improvement in providing proper space for repair work and for storage.

The building formerly used for a restaurant has been moved adjacent to the office and converted into a laboratory. A complete new laboratory has been fitted out, and is in charge of Gust Johanson, who held the position of chemist during the previous operation.

Within three days after the mill started up, first grade pulp was being made, according to Ralph Shaffer. While this is rather unusual, A. D.

"Dad" Wood, superintendent, attributes it to the excellent care given the mill during the period of its shut-down.

This is even more surprising in view of the fact that the plant started up with acid that had been in storage for 26 months, since the mill closed down. The acid was stored in three wood tanks constructed of 3-inch staves, and water was kept on top of it throughout its storage. When the plant was ready to start again, Dad Wood drew samples one foot down and found it had 5.5 per cent total SO₂ content. When originally placed in the tanks it had about 6.2 per cent total and 1.25 per cent combined SO₂ content.

Acid making was started when the plant was ready to run, of course, and the first batches were run with the old acid, the new going into the system gradually. The first runs were pretty gray, due to the action of the pulp scrubbing out the pipes which had not been used for 26 months, but within three days a good color of pulp was being turned out.

NEW C.-W. BAG FACTORY BUILDING AT LOS ANGELES

Crown-Willamette Paper Co. announces plans for a new \$75,000 bag manufacturing plant to adjoin their present offices and warehouse at 2945 East 12th St., Los Angeles. Construction work has started on a building, 86 by 193 feet in size, and bag making machinery will be installed during the spring, so the plant will be able to get into production by the middle of the year.

All the machinery will be new and the plant will produce self-opening

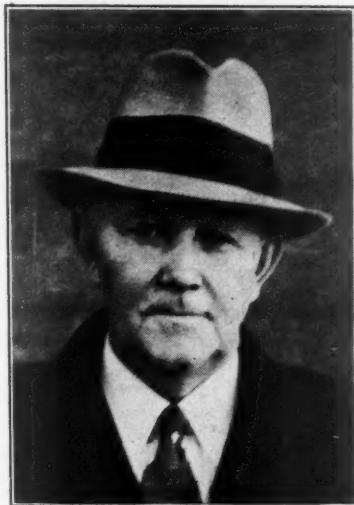
grocery bags from one-quarter to 36 lbs. in size. Kraft paper for the bags will be shipped from the Crown-Willamette mill at Camas and the National Paper Products Co. plant at Port Townsend.

Crown-Willamette has one of the largest bag factories in the world at Camas, which has a capacity for producing 6,000,000 bags a day.

BELLINGHAM TISSUE MILL SHOWS PROGRESS

A recent visit at the Bellingham mill of the Pacific Coast Paper Mills found the plant running at full speed, and the management pleased with the progress being made.

J. J. Herb, president of the company, is dividing his time between the Bellingham mill and the plant at New Westminster, guiding their activities with the sure hand that comes from long years of experience as a practical paper maker. Elmer



J. J. HERB

Herb is busy with sales, and recently returned from a trip to the East and through the eastern Canadian provinces. W. J. Herb, who until recently made his headquarters in Seattle, is at the main office looking after the business handled by his Brother Paul Herb, who is in Honolulu taking a much-needed rest. He expects to be away from the plant for about 90 days.

This mill is known as one of the lowest cost plants of its kind in the country, and is in a position to compete successfully with the largest companies in its classification. It manufactures a number of different brands of toilet tissues, one of the leaders of which is M-D tissue, a brand which has an enviable sales record on the Pacific Coast.

PACIFIC PULP & PAPER INDUSTRY



F. R. ARMBRUSTER
Now in Weyerhaeuser Lab.

**F. R. ARMBRUSTER JOINS
WEYERHAEUSER'S**

F. R. Armbruster, son of G. J. Armbruster, general superintendent of the Soundview Pulp Co. of Everett, Wash., graduated last month from the Department of Chemical Engineering at the University of Washington, and immediately went to work in the laboratory of the pulp division, Weyerhaeuser Timber Co. at Longview.

Mr. Armbruster attended the TAPPI meeting at Seattle April 6-7, leaving later for Longview to take up his duties on April 10. While in the University, he specialized in pulp and paper chemistry, and is well fitted by education for work in the industry. By heritage he should be a good pulp maker, if he is a chip off the old block as he appears to be.



G. J. ARMBRUSTER
General Superintendent,
Soundview Pulp Co.

Canadian Market Control Plans Will Affect Newsprint Industry

Never before has there been such a volume of business for British Columbia newsprint mills as now, according to A. E. McMaster, general manager of Powell River Company, who recently returned to Vancouver head office after a visit to Texas, California and other southern states on a trip that combined business with a vacation. His own company is producing an average of 620 tons of newsprint daily.

Pacific Mills, Ltd., subsidiary of Crown Zellerbach Corporation, has also been operating at Ocean Falls at full capacity, with an abundance of orders since the turn of the year.

Prices, however, are still extremely low, allowing very little margin for profitable operation. Mill operators note a tendency on the part of publishers to realize that there is a limit at which newsprint can be economically produced, and a more reasonable attitude is being encountered in most markets.

Legislation introduced by the Canadian government at Ottawa to control marketing and similar legislation passed by British Columbia and other provinces to give local effect to the federal law was seen in some quarters as an attempt to co-ordinate Canadian policy with the National Recovery Act in the United States, especially in respect to the

newsprint industry; but whether this is actually a fact remains to be seen.

The bill provides for the creation of marketing boards with authority to regulate the distribution of any natural product which the government may by order-in-council declare to be a regulated product. Power is given to limit or increase the export of any regulated product at any time and also control the interprovincial trade, with authority to recompense exporters for losses incurred through compliance with the board's orders, and also for losses due to fluctuations in exchange rates involved in orders of the board.

Stronger Than NRA Control

Many of the troubles of the Canadian newsprint industry in the past have been due to lack of restriction of expansion in various provinces. Local developments have been encouraged without consideration for the interests of competing mills in adjacent provinces, with the result that the industry became cursed with over-production and far more mills than were necessary for economic operation of the industry. While the new legislation does not directly affect future expansion, it does bear upon the marketing of existing plants' products, and puts

into the hands of the Canadian newsprint manufacturers, under government supervision, a degree of control over price and sales that is unprecedented on this continent. One interpretation of the measure is that the law puts the government into complete alliance with manufacturers for export, and provides an aggregate of data upon which to base its actions that no industry could assemble without government mandate. No code regulation applying to American industry under the NRA affords the integration possible under the proposed Canadian act.

Canadian newsprint men admit that, so far as their industry is concerned, the effects of this legislation are almost sure to influence export trade to some extent inasmuch as the pulp and paper trade of Canada is practically 90 percent export, with domestic requirements being negligible.

Since the conferences with General Hugh Johnson some months ago, there has been no further action towards codification of the Canadian newsprint industry. In a general sense, Canadian mills have merely continued under the contracts with American publishers then prevailing and no aggressive steps have been taken to increase the quota of American business either by price cutting or any other means. So far as price cutting is concerned, the NRA has given the United States authority to bar shipments quoted at less than the established minimum of \$41 a ton.

HAWLEY REORGANIZATION PLAN COMPLETED

Designed to safeguard so far as possible the interests of all concerned and to keep the plant in operation under capable management, the proposals of the reorganization committee of the Hawley Pulp & Paper Co., Oregon City, Ore., have been made public. This committee consists of Isaac D. Hunt and E. S. Collins, both of Portland, representing the bond holders; W. Lair Thompson, of Portland, representing the note holder; A. S. Kerry, of Seattle, representing the stockholders, and Watson Eastman, of Portland, representing the management.

When it was evident that the Hawley Pulp & Paper Co. could not meet semi-annual interest due July 1, 1933, on its first mortgage 6 per cent sinking fund gold bonds, the reorganization committee was appointed by the directors. The Hawley company had outstanding first mortgage sinking fund 6 per cent gold bonds totaling \$2,127,500; 20,000 shares of first preferred \$7 cumulative no par stock; 512 1-3 shares of second preferred \$6 cumulative no par stock; 25,621 23-24 shares voting trust certificates for common stock.

Securities to be Deposited

Under the plan of reorganization the deposit of securities is desired: to preserve the Hawley Pulp & Paper Co. as a going concern; prevent receivership and foreclosure by waiving a default under the mortgage and trust deed prior to January 1, 1939, in (1) the payment of bond interest, (2) the maintenance of sinking funds, (3) the sale of capital assets and/or (4) the use and disbursement of insurance moneys; allow for a minimum retirement of first mortgage bonds at market prices; provide a waiver of accumulated dividends on first preferred \$7 cumulative no par stock from January 1, 1934, to December 31, 1938; provide a waiver of all dividend requirements on second preferred \$6 cumulative no par stock prior to January 1, 1939; provide an orderly method of distributing any available funds to the various classes of securities in the order of their priorities; and to provide a method of

holding and compensating the management.

Briefly summarized, the plan, devised to effectuate the above and retain the priority of all securities as now existing, provides for all available funds being disbursed to bondholders until the bonds are retired except as provided hereafter. This will be accomplished by using annually the first \$279,404.48 (the 1932 depreciation charges) for the purchase of bonds after advertising for offers. Funds exceeding this amount (net earnings of the company) are to be disbursed as interest to bondholders until 4 per cent per annum has been distributed. Funds above this amount will be used for the payment of interest on the note until 3 per cent per annum has been distributed. Funds above this requirement are to be used for the purchase of bonds and the retirement of the note in the ratio of 81 per cent par value of bonds and 19 per cent par value of note, until a million dollars par value of bonds shall have been retired, when such available funds shall be used first, for the payment of bond interest; second, the payment of note interest and third, for the purchase and retirement of bonds and note principal on a pro rata basis according to the par value of the outstanding bonds and unpaid par value of the note. After the retirement of bonds and note, dividends shall be paid on the first preferred stock and upon the payment of all cumulative dividends thereon, the plan terminates.

Effects of the Plan

The effect of this plan as bearing on each class of securities called for deposit and when said plan shall be effective, is as follows:

Bonds—Interest due to January 1, 1934, at the rate of 6 per cent per annum shall be paid at the maturity of the bonds; interest due from January 1, 1934, to December 31, 1938, shall be cumulative at the rate of 4 per cent per annum, payable contingently out of available funds after the retirement of bonds as above noted.

The Note—Interest shall accrue at the rate of 7 per cent per annum

until January 1, 1934, and shall be payable at the maturity of the note. Interest from January 1, 1934, to December 31, 1938, shall be cumulative at the rate of 3 per cent per annum, payable out of available funds as above noted. The maturity of the note shall be extended to January 1, 1943.

First preferred \$7 cumulative no par stock—Cumulative dividends to January 1, 1934, shall be at the rate of \$7 per share per annum. From January 1, 1934, to December 31, 1938, no dividends shall accrue or be paid upon such stock. After January 1, 1939, dividends shall again accumulate at the rate of \$7 per share per annum. As voting control of the company is now lodged in the first preferred stock, such deposited stock shall be placed in a voting trust under a voting trust agreement.

Second preferred \$6 cumulative no par stock—All dividends accruing and/or accumulating thereon prior to January 1, 1939, are waived.

Stock Classes Participating

Second preferred and the common stock represented by voting trust certificates—The owners of 7,487 2/3 shares of second preferred stock and 174,378 1/24 shares of common stock represented by voting trust certificates have participated in the preparation of the plan and have agreed to deposit said stock under the plan. As this is over 85 percent of the outstanding shares of each class such deposit is sufficient to make the plan effective as to these classes. This stock shall be used to compensate the management by giving said stock to the management if, as, and when the management earns same under the plan. If the management fails to meet the requirements of the plan the depository shall continue to hold these deposited shares for ultimate use or disposal in the negotiation and consummation of any plan of successor management, or deliver these shares to the purchaser of the properties of the company at an execution sale held under the foreclosure of the deed of trust. 513 1/3 shares of second preferred and 25,621 23/24

PACIFIC PULP & PAPER INDUSTRY

shares of voting trust certificates of common stock are held by the public. As deposited shares of these two classes of securities will not be returned to depositors and will ultimately be disposed of to others, no possible benefit can accrue to holders thereof by depositing and it is, therefore, recommended that they do not deposit such shares.

Directors of the Hawley Pulp & Paper Co. are: Watson Eastman, John H. Smith, Louis Woerner, Franklin T. Griffith, E. S. Collins, L. R. Banks, W. Lair Thompson, all of Portland. Officers of the company are: President, Watson Eastman; vice president, John H. Smith; secretary, Louis Woerner; assistant treasurer, Martin R. Lindle. Deposits are to be made with the Bank of California in Portland, Tacoma or Seattle. Since December, 1932, the Western Cooperage Co., of Portland, has supplied management personnel. The Western Cooperage Co. has acquired from Blyth & Company, Inc., the note for \$500,000 and 7,487 2/3 shares of the second preferred \$6 cumulative no par stock.

CONTRACT LET FOR FIBREBOARD DIGESTER

Contract for constructing a new digester at the Port Angeles plant of the Fibreboard Products Co., Inc., has been awarded, and construction will commence upon arrival of the materials. Most of the material will come by rail.

The new digester construction, with overhauling of the acid plant, general enlargement of certain plant facilities and installing of some new equipment, is expected to increase the sulphite capacity of the Fibreboard plant from 36 tons to 54 tons daily, and make possible permanent employment for an additional twenty men, who have already been selected.

RAINIER MILL BUILDING NEW WASTE LIQUOR EVAPORATOR

A new waste disposal system is being built by the Rainier Pulp & Paper Co. at Shelton, Wash. It consists of an incinerator-evaporator which uses hot air and gases to evaporate the water from the liquor. The residue will be burned to provide the heat for the process, the unit being entirely self-contained.

The plant was designed by the company's staff, and construction was started April 1. Upon its completion, it is expected that all of the waste liquor will be handled through the evaporator.

VAN WINKLE WEDS

Marion E. Van Winkle, chemist at the Oregon Pulp & Paper Co. plant at Salem, Ore., was married March 23 to Miss Alice Lucille Ashbrook. They are now making their home in Salem.

Both Mr. and Mrs. Van Winkle attended Washington State College, where started the romance culminating in their marriage last month.

SITKA SPRUCE PULP PLANT SALE GOES THROUGH

Sale of the Sitka Spruce Pulp & Paper Co. mill at Empire, Ore., to the trustees on their bid of \$74,242, in addition to taxes, was confirmed by the Circuit Court in Coquille on April 2. It is understood that the trustees are negotiating with K. O. Fosse of the International Wood and Sulphite Co. to turn the property over to him, as reported in the last issue of this journal.

L. A. Liljeqvist and J. A. McKeown of the law firm Liljeqvist & Swanton filed notice of appeal from the order of the court authorizing sale of the property. Work of rehabilitating the mill will not start until the appeal has been settled.

RAINIER SUIT DISMISSED

The suit instituted in Mason County Superior Court by H. W. Deegan against the Rainier Pulp & Paper Co. opposing the merger of this company with the Olympic Forest Products Co. and the Soundview Pulp Co., and seeking to force distribution of surplus to the stockholders, was dismissed late in March by Judge John M. Wilson.

The court held that there was no further cause of action inasmuch as the Superior Court in Snohomish County had issued a decree against the merger, and since the Rainier Pulp & Paper Co. and the Olympic Forest Products Co. had notified their stockholders that the proposal had been abandoned.

MRS. M. A. WERTHEIMER

Friends in many sections of the country regretted to learn of the death of Mrs. M. A. Wertheimer, wife of Monroe A. Wertheimer, president of the Thilmany Pulp and Paper Co., Kaukauna, Wis. Mrs. Wertheimer passed away the latter part of March in Chicago.

Robert S. Wertheimer, resident manager of the Longview Fibre Co., Longview, returned from Honolulu, where he had been recovering from a serious illness, just in time to go to his mother in Chicago.

NOTES FROM INLAND EMPIRE

Inland Empire Paper Co., Millwood, Wash., is running 5 days a week and has found the market for its products gradually expanding. W. E. Rosebush, general manager, is optimistic over the outlook. The major output of the company is newsprint, for which there is a gradually expanding demand. Static flat sheet news is moving in better volume and there is a fair demand for colored news. The most active demand and the greatest increase has been shown in the demand for No. 2 mimeograph paper. The company is finding a fair market for No. 2 ground wood book.

W. A. Brazeau, who combines the duties of secretary with those of purchasing agent, thinks that paper demand is opening up as rapidly as could be anticipated. Jobbers in the Spokane territory report a gain in business. George A. Brown, superintendent, is enthusiastic over the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association. Mr. Rosebush, as a hobby, collects old firearms and has one of the best collections upon the Pacific Coast.

EVERETT H. BARTON CITY COUNCILMAN

Everett H. Barton of the pulp division, Weyerhaeuser Timber Co., has been appointed to a vacancy in the Longview, Wash., city council, and will hold office for the balance of the year.

LOUISE FITZ TO BE BRIDE OF ARTHUR FRANCIS

One of the season's most interesting engagements, formally announced April 17, tells of the betrothal of Louise DeWolfe Fitz, elder daughter of Mr. and Mrs. Walter Scott Fitz, to Mr. Arthur Frank Francis of Waterbury, Conn., and Milwaukee, son of the late Joseph E. Francis of Waterbury.

Miss Fitz, one of the most attractive and beautiful girls in the debutante set, is a graduate of St. Nicholas School and a provisional member of the Junior League. She is a granddaughter of the late Charles F. Whittlesey. She is a resident of Seattle.

Mr. Francis is a graduate of Pratt Institute of Brooklyn and now is in charge of paper mill sales for the Chromium Corporation of America.

No date for the wedding has been set.

T·R·A·D·E · T·A·L·K

of those who sell paper in the western states

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All Roads Lead to Del Monte For Paper Trade Meet May 10-12

Code matters are expected to be the main subject of discussion at the seventeenth annual convention of the Pacific States Paper Trade Association convention at Del Monte, Thursday, May 10, to Saturday, May 12, inclusive. Louis A. Colton of the Zellerbach Paper Co., San Francisco, who is chairman of the program committee for the convention, says he looks for the 1934 meeting to be the best attended in the association's history. Close to 100 delegates from the coast paper trade are looked for and, in addition, there will be mill men and other visitors.

Arthur W. Towne, San Francisco, Blake, Moffitt & Towne, is president of the association and will preside, opening the convention with the annual merchants and manufacturers' joint meeting at eight o'clock on Thursday evening. The following two days will be taken up with convention and committee meetings and on Saturday evening, at 7:30, the convention will close with the annual joint golf dinner and convention banquet.

C. H. Beckwith, San Francisco, Carter, Rice & Co. Corporation, is executive first vice-president, and is in line for the 1934-35 presidency. The other vice-presidents are Samuel Abrams, Ralph W. Finch, T. A. O'Keefe, M. O. Olmsted and J. W. Thompson.

Harold L. Zellerbach, San Francisco, Zellerbach Paper Co., is chairman of the Pacific States Regional Code Committee for the paper distributing trade, and will lead in the discussion of code matters. Mr. Zellerbach and H. Arthur Dunn, San Francisco, secretary and counsel for the association and the code committee, may spend some time in the east in April before the Del Monte meeting attending code conferences. Mr. Towne is vice-chairman of the code committee and the other members are S. L. Brilliant, H. S. Bonestell, C. H. Fricke, W.

D. McWaters, O. W. Mielke, T. A. O'Keefe, G. O. Rogers, A. P. Spitzko and J. W. Thompson.

President Towne was in the east recently attending the National Paper Trade Association meeting and earnestly invited that body's new president, Arnett W. Leslie of Minneapolis, to come west to the coast meeting but Mr. Leslie said it would be impossible for him to make the trip at this time.

Simultaneously with the paper trade convention at Del Monte will be held the sixteenth annual golf convention staged by paper manufacturers. This year J. G. Ticoulet of the Crown-Willamette Paper Co., San Francisco, is chairman of the golf committee and other members are W. J. Gray of the Paterson Parchment Paper Co., Andrew Christ, Jr., Western Waxed Paper Co., M. M. Baruh of the Crown Zellerbach Corporation and Augustus Johnson, formerly with the Everett Pulp and Paper Co. Mr. Johnson was chairman of the golf committee for years before he retired from business this spring but he is being retained as a member.

The Golf Tournament

Chairman Ticoulet and his golf committee held a number of meetings before the convention and announced that the golf tournament would be conducted along the same lines as those of recent years, with prizes being given by the various paper mills and supply houses. At the Hotel Del Monte it often has been said that the paper trade golf awards make up the finest set of trophies given there by any convention each year.

The tournament itself will be on a handicap basis, with a 36-hole medal play for gentlemen and an 18-hole medal meet for ladies. The men will play the first eighteen holes on Friday of convention week and the second eighteen on Saturday. The ladies' round will be played Fri-

day and there will be prizes for low gross and best net in all classes. In addition there will be blind bogey prizes, prizes for a gentlemen's approach and putting contest, ladies' putting contest and for a mixed two-ball foursome. The trophies will be awarded at the banquet Saturday night.

S. J. BURGOYNE TO ATTEND AT DEL MONTE

Sidney J. Bourgoyne, card manufacturer of Philadelphia, Pa., has advised Arthur W. Towne of Blake, Moffitt & Towne, that he will attend the Pacific States Paper Trade Association convention at Del Monte in May.

CARTER-RICE DISTRIBUTES BONUS TO EMPLOYEES

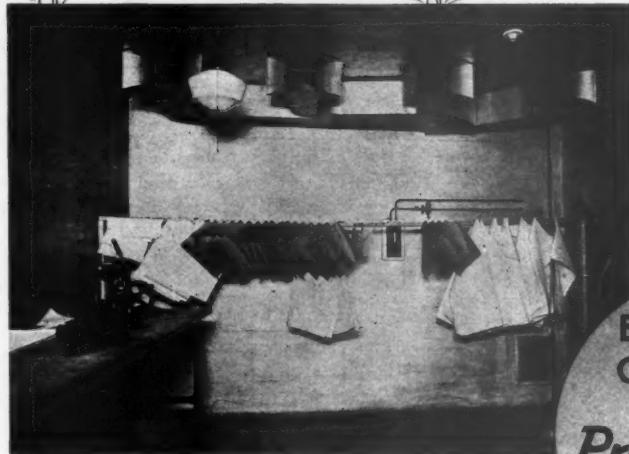
All employees of Carter, Rice & Co. Corporation at San Francisco, Portland and Seattle participated in a bonus which the company's Board of Directors ordered to be distributed at their recent annual meeting.

Charles A. Esty, president of the firm, in announcing the distribution stated that while there is still some uncertainty as to what the future holds, definite progress has been made since July, 1933. In this bonus the Board of Directors expresses its appreciation of the part each employee has played in the gains made so far.

C. H. Beckwith, Pacific Coast manager, under whose direction the bonus distribution has been made in the West Coast divisions of the company, feels that this action is a clear indication that a definite business improvement is under way. Recovery generally, and the fulfillment of the administration's recovery program, is given a very material assistance by actions such as this bonus distribution.

While it is a generous act on the part of the company, it is an indirect contribution to the progress toward improvement of business, and it is particularly gratifying to have the company recognize each member of the organization in this equitable manner, Mr. Beckwith said. The bonus was proportioned on a basis of compensation in 1933.

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C. A. Esty Visits Coast Divisions

Charles A. Esty, president of the Carter, Rice & Co. Corporation, recently made his first trip to the Coast in four years, to confer with the Pacific Coast divisions of his company. Leaving Boston March 24, he went to San Francisco, Portland and Seattle, spending several days with each division.

From Seattle he went on East, stopping over at Minneapolis and Chicago. He was away from his Boston headquarters about three weeks, all the time he could spare away from the home office. Mr. Esty is chairman of the regional code authority for New England and northern New York, a job which requires his constant attention.

In San Francisco he conferred with C. H. Beckwith, Pacific Coast manager of the firm, and then the two came on to Portland, where J. W. Murphy is in charge. At Seattle they were with E. E. Embree, local manager.

Mr. Embree gave a luncheon for Mr. Esty at the Washington Athletic Club on April 6, which was attended



C. A. ESTY

O. C. SCHOENWERK AT LONGVIEW

Otto C. Schoenwerk, well known pulp and paper mill engineer, arrived in Longview early in April, expecting to remain there for about 30 days.

GENERAL PAPER GETS EXCLUSIVE SALE FOR DILL & COLLINS

The General Paper Company of San Francisco announces that they have secured the exclusive resale of the following lines of Dill & Collins' well-known papers—coated books, De & Se tints and offset books.

The Dill & Collins' merchandise is very favorably known on the Pacific Coast, and a complete stock of their Black & White, Printflex and Tioga coated papers are immediately available in San Francisco and Oakland.

Dill & Collins are lineal descendants of America's first paper mill and they have maintained an enviable record in fine paper making since their inception. Their creed, "Master makers of printing papers", is fitting and well deserved.

The Dill & Collins' coated papers are also carried in stock by the General Paper Company's Los Angeles division.

Charles Paganini is president of the General Paper Company, H. D. Bean is vice-president and general manager. For Dill & Collins, Inc., Andrew H. Cochran is Pacific Coast representative.



E. E. Embree, left; C. H. Beckwith, right.

by 14 or 15 of the leading Northwest printing trade men. Among them was Don D. Stewart, member of the national executive committee in the Northwest for the Graphic Arts Code; Joe Burke, secretary of the Printing Industry, Inc. of Seattle and vicinity, and leading printers. This was an informal meeting at which Mr. Esty gave an encouraging statement about present business of the industry. He also discussed the Graphic Arts code and the paper distributing code.

Mr. Esty left Seattle April 8. Mr. Beckwith, who formerly was Seattle manager before being placed in charge of the entire Coast and the San Francisco office, went south on April 10.

D. L. Maxwell, San Francisco, The Tissue Co., was on one of his periodical trips to the firm's plant at Camas, Wash., in April.

RAINIER PULP PLANT EXPANDING OFFICES

An extensive and much needed improvement has been started at the Rainier Pulp & Paper plant, in an addition 20x40 to the office building, the lower floor to be devoted to increased vault, clerical work room and a recreation room. The added space to the second floor will provide for increased desk room and relieve the congestion which has followed the expanding business and added employees and clerical work.

Among the other improvements being completed at the plant is a new sulphur elevator replacing the old system.

NILS TEREN IMPROVING

Nils Teren of the Oregon Pulp and Paper Co. was still, at time of writing, in St. Vincent's hospital in Portland, recovering from a serious operation. His condition is good, and he will soon be back on the job.

His many well-wishers at the spring TAPPI meeting sent him a wire wishing him speedy recovery, reflecting the hopes of pulp and paper men throughout the industry.

SAFETY NOTES

A safety rally meeting was held at the plant of the Hawley Pulp & Paper Co., Oregon City, Ore., on April 10. Frank J. Lonegan, who is a candidate for nomination for governor, addressed the rally on the value of safety work and its benefits to employee and employer.

* * *

On March 27 "graduation exercises" were conducted at the plant of the Crown-Willamette Paper Co., Camas, Wash. An advanced first aid class and two junior classes completed their course. Six men were also graduated as instructors in safety. All received Red Cross certificates. The exercises were held in the City Hall, after which a banquet was served to over 100 people. E. R. Brown, of the National Safety Council, Portland, attended and Capt. Johnson and his crack first aid crew from the Portland Fire Department put on a demonstration.

* * *

Forty-two men from the Oregon Pulp & Paper Co., Salem, Ore., have signed to take a first aid course to be given at the armory in Salem under the auspices of the Physicians & Surgeons Association of Marion County. Last year there was a class of 37.

PACIFIC PULP & PAPER INDUSTRY

GEORGE RODIER HOST AT ANNUAL PARTY

George L. Rodier, San Francisco, Pacific Coast manager of the West Virginia Pulp and Paper Co., was host at his firm's fifth annual golf tournament and good fellowship party at the Hotel Del Monte, Del Monte, Calif., March 23, 24 and 25. It was largely attended by printers, publishers and advertisers from Pacific Coast points and a very good time was had by all.

ZELLERBACH DIVISION MANAGERS TO MEET

A meeting of the divisional managers of the Zellerbach Paper Co. will be held at executive headquarters at San Francisco May 14, 15 and 16. One day will be devoted to the activities of the standardization committee.

MARTIN CANTINE LINES NOW HANDLED EXCLUSIVELY BY CARTER, RICE

E. B. Skinner, San Francisco, Pacific Coast representative of The Martin Cantine Co., eastern paper manufacturers, announces that in the future the San Francisco distribution of his line will be handled exclusively by the Carter, Rice & Co. Corporation at 240 Howard St. in that city. In the past the General Paper Co. and Carter-Rice had a dual agency.

ROY SWAIN IN NORTH

Roy A. Swain of Los Angeles, representing the L. L. Brown Paper Co. of Adams, Mass., called at the office of Pacific Pulp & Paper Industry March 26 while on a trip through the Pacific Northwest.

"WESTVACO INSPIRATIONS FOR PRINTERS" PUBLISHED

The West Virginia Pulp and Paper Co. has just issued a new 275-page handsomely illustrated "Westvaco Inspirations For Printers," a large book showing samples of advertising matter, cover designs, type faces, examples of engraving processes and other data. Copies of this may be had for the asking by writing to George L. Rodier, San Francisco, Pacific Coast manager of the West Virginia Co.

WEDDING BELLS FOR TED CORCORAN

Ted Corcoran of the Corcoran Paper Co., Fullerton, Calif., recently returned from his honeymoon trip in northern California. He married Miss Barbara Brown of Fullerton on March 28.

SCHMITT BACK ON JOB

The many friends of Charley Schmitt, San Francisco, will be pleased to learn that he is able to be back at his desk at the Charles J. Schmitt Co., paper box manufacturers, after an operation in which a leg was amputated.

NOVEL ADVERTISING CAMPAIGN

The Peninsular Paper Co. of Ypsilanti, Mich., "makers of uncommon cover papers", have recently inaugurated a new advertising campaign of unusual attractiveness.

There will be 10 mailings of practical plans for printers, a series of portfolios presenting ideas, plans and suggestions that are smart and modern. Color combinations, novel folds, typographic arrangements will be shown, illustrating the adaptability, the versatility and practicability of Peninsular uncommon cover papers.

The first mailing consisted of a portfolio entitled "Who and What at Peninsular", giving in most pleasing style some of the facts about the company's plant and personnel, and a folder "Starting From Scratch", giving a general picture of the projected campaign.

BUEL TOURS TEXAS

R. H. Buel of the Buel Town Co., Diego, left with a party of friends March 21 by automobile on a trip to Texas. The party made an extensive tour of the Carlsbad Caverns.

IT'S HOPKINSON

In our last issue a news item welcoming back N. D. Hopkinson into the paper trade in his connection with Carter, Rice & Co. Corporation, spelled his name "Hopkins" instead of in the correct manner. Our apologies, Mr. Hopkinson.

But we have an alibi, and it's well nigh perfect. A statistician has worked out the number of chances for mistakes in one column of print—the number is 70,000 to 1. In an ordinary newspaper column there are 10,000 letters; there are seven wrong positions that a letter may be put in; there are 70,000 chances to make an error and millions of chances for transpositions.

In the short sentence "To be or not to be", by transposition alone it is possible to make 2,738,009 errors. So don't be too hard on us when we make a mistake.

MCCORMICK IN SEATTLE

W. J. McCormick, representative of the American Writing Paper Co., was in Seattle the last of March, calling on various members of the trade. One of his stops was with C. O. Dickie, president of the Paper Mills Agency, Inc. J. T. Dickie is sale manager for this company at the Seattle office, and W. K. Steele is the manager of the Portland branch at 1104 N. W. 15th St.

GILBERT OUT FROM MENASHA

T. M. Gilbert, treasurer of the Gilbert Paper Co., Menasha, Wis., arrived in Seattle April 5, in company with Horace Gimlin, Coast representative, who headquarters in San Francisco.

B. M. & T. CONDUCTING EFFECTIVE CAMPAIGN

Blake, Moffett & Towne, San Francisco, Pacific Coast distributors for the Neenah Paper Co. of Neenah, Wis., is conducting an effective advertising campaign on Neenah rag content bonds, sending letters and samples to executives in various industries along the coast. Recently Reeve T. Watson, advertising manager of Blake, Moffett & Towne, sent out the fourth letter of the series and with these letters went return postcards by which the recipients could ask for a free copy of a book, "Leverage for Letters," showing various types of letters. The surprising large number of 100 postals had been returned out of 900 by early in April and more were expected.

PAPER MATCH MAN TRAVELS COAST

J. L. Ponder, West Coast manager for the Lion Match Co., who makes his headquarters in Los Angeles, visited Portland and Seattle the latter part of March. In Portland he was with George Houk of the Northwest Paper Sales Co., who handles the Lion line, and in the northern city he spent some time with Marshall Hopkins, Seattle manager of the sales company.

S. CHOTEAU PLATT

S. Choteau Platt, for the past 19 years with the Sierra Paper Co., Los Angeles, passed away at his office March 18 after a heart attack. Prior to going with the Sierra Paper Co. Mr. Platt was for a number of years with Blake, Moffett & Towne. He was well known and liked by the trade and his untimely passing was a shock to his many acquaintances.

New Statistical Basis

With the publication of the January foreign trade figures the Department of Commerce inaugurates a change in import statistics advocated for some time by leading economists and statisticians. Statistics of United States import trade issued in the past by the Department of Commerce have related to "General Imports". Beginning with January 1934 import statistics compiled by the department will show instead "Imports from Consumption".

Import statistics as previously published under the heading of "General Imports" included two types of "import". Comprising this total were the value of goods entering the country during the period concerned and flowing immediately into the channel of trade—hitherto sometimes referred to as "imports for immediate consumption"—plus the value of those goods arriving from foreign countries for entry into bonded warehouses.

Import statistics for January and succeeding months to be referred to as "Imports for Consumption" will include goods arriving for consumption plus withdrawals from warehouses for consumption purposes. Thus the goods arriving from foreign countries for entry into warehouses will not appear in the import statistics unless and until such time as they actually are withdrawn and enter into the domestic economy of the country.

Imports of paper and paper base stocks into the United States during January totaled \$11,829,936, divided as follows:

Pulpwood	Cords	28,000	\$ 161,060
Woodpulp	Tons	141,616	5,047,496
Mechanical	Tons	13,137	215,013
Unbleached sulphite	Tons	52,701	1,798,867
Bleached sulphite	Tons	30,311	1,605,905
Unbleached sulphate	Tons	38,727	1,064,892
Bleached sulphate	Tons	2,670	195,172
Soda	Tons	444	20,129
Other	Tons	58	12,930
Rags for paper stock	Tons	1,587	59,651
All other paper stock	Tons	1,981	74,937
Newsprint paper	Tons	150,671	5,846,200
Other paper and manufacturers	Tons		775,180

For the reason mentioned above comparisons cannot be made with preceding months.

Imports of pulpwood, wood pulp, newsprint and wrapping papers into the United States during February, 1934, were as follows:

Pulpwood	Cords	23,175	\$ 132,628
Woodpulp	Tons	138,993	5,190,903
Mechanical	Tons	10,186	187,360
Unbleached sulphite	Tons	54,077	1,860,607
Bleached sulphite	Tons	31,302	1,684,486
Unbleached sulphate	Tons	40,067	1,233,712
Bleached sulphate	Tons	2,761	194,347
Soda	Tons	582	26,402
Other pulp	Tons	18	3,989
Newsprint paper	Tons	124,584	4,207,286
Grease and waterproof papers	Tons	14	7,293
Kraft wrapping	Tons	359	27,564
Other wrapping	Tons	14	1,798

FEBRUARY NEWSPRINT STATISTICS

Production in Canada during February 1934 amounted to 174,447 tons and shipments to 169,054 tons, according to the News Print Service Bureau. Production in the United States was 72,402 tons and shipments 69,251 tons, making a total United States and Canadian news print production of 246,849 tons and shipments of 238,305 tons. During February, 22,038 tons of news print were made in Newfoundland and 1,471 tons in



The JONES SCREEN Challenges Comparison

All screens offer some feature, but only the Jones Screen combines all features that mill men demand. Several of its many advantages are:

1—CLEAN PAPER

Large capacity to permit a gentle screening action with no forcing, which allows continuous passage of only clean and uniform fibres through smaller cut plates than heretofore were customary. This assures uniformity and cleanliness of sheet.

2—LARGE CAPACITY

Combines need for larger production tonnages without additional equipment as well as assuring all around improvement of screening conditions on the smaller capacities. Capacities up to 6,000 lbs. per hour.

3—ACCESSIBILITY

Well designed with open end drum which allows unobstructed flow of accepted stock and gives complete accessibility to screen interior for cleaning purposes.

4—ECONOMICAL OPERATION AND MAINTENANCE

Simplified design and rugged construction assure efficient operation under severest working conditions over a long period of years. In fact, it embodies every improvement to assure the highest efficiency of performance at the lowest operating and maintenance cost.

Descriptive, illustrated catalog mailed on request.

Pacific Coast Supply Co.

Seattle—Portland—San Francisco

Exclusive Pacific Coast Representative for the entire line of paper mill products made by

Jones

A name that has won a world-wide reputation through 75 years devoted to paper-making progress

Mexico, so that the total North American production for the month amounted to 270,358 tons.

The Canadian mills produced 98,032 tons more in the first two months of 1934 than in the first two months of 1933, which was an increase of 37 percent. The output in the United States was 15,270 or 11 percent more than for the first two months of 1933, in Newfoundland 7,834 tons or 20 percent more, and in Mexico 164 tons more, making a total increase of 121,300 tons, or 27 percent.

Stocks of news print paper at Canadian mills are figured at 40,445 tons at the end of February and at United States mills 22,060 tons, making a combined total of 62,505 tons compared with 53,961 tons on January 31, 1934. The small increase in stocks during January and February was due chiefly to accumulation of tonnage to be shipped later by water.

FAIR PLAY

We are indebted to L. J. Arms, western sales manager of the National Paper Products Sales Co., San Francisco, for sending us an editorial appearing March 16 in the Christian Science Monitor, dealing with the newsprint situation. This widely read and influential publication, generally regarded by news men as the finest example of good newspaper practice, calls for "Fairness to the Paper Makers" in the following editorial:

"Consumers naturally dislike to pay any more than they have to for what they buy. Newspaper publishers are no exception to the rule, and one of their biggest items of consumption—probably the biggest—is newsprint, or in other words the pulp paper on which they print their news.

"Like numerous other commodities, however, newsprint has fallen so far in price in the last few years that its manufacturers in the United States and Canada earnestly assert they are receiving less than the out-of-pocket costs of production, without counting anything for interest on their debts or heavy investments. Whatever debates there may be over accounting figures, there apparently can be little doubt that the newsprint industry is in serious distress. This is indicated by the prevalence of receiverships among large and supposedly strong firms.

"In consequence, the paper manufacturers are seeking to put a bottom under the price structure they have recovered from the depression wreckage and to do this by price control through the NRA code. Only the oil industry has approached such a strong system of price fixing as is proposed for newsprint, but in few others has the pressure been more severe.

"This may not be the most desirable way to try to solve the problem, but clearly there is occasion here for some of that new attitude among consumers which has been the distinctive characteristic of the reign of the Blue Eagle—a willingness, and even a desire, to see that the workers and producers of goods shall receive a fair compensation. Newspapers unquestionably have had their problems in these days of stinted advertising; but even so, they are not so pinched that they cannot afford to wish the paper manufacturer and his employees a reasonable share in the proceeds of what both industries have worked to produce.

"The Monitor feels sure that the great majority of American newspaper publishers have no desire to profit by the distress of a supplying industry or to force the producers of a needed commodity into still greater difficulty. Whether prices are established by code or not, there is every reason to expect a widening acknowledgement that present levels of newsprint prices are certainly none too high."

Name It —and We Have It

There are all kinds of paper mills and all kinds of paper machines in them. There are all sorts of operating conditions and all sorts of felting needs.

We weave fine felts with which to serve those many and varied felting requirements, and even send you a felt adapted to any condition you may describe.

Nor are we ever hesitant about placing Orrs in competition with other felts to determine which leads in water removal qualities, or in ability to stand hard wear.

Send your next felt order to Piqua.

Pacific Coast Representative: GEO. S. MEDDIS
1650 No. Point St., San Francisco, Calif.

The
Orr Felt & Blanket Co.
PIQUA, OHIO

